State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



January 10, 2019

Mr. Scott Buckner Citgo Petroleum Cooperation 2316 Terminal Drive Arlington Heights IL 60505

## KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

Subject:

Final Case Closure with Continuing Obligations

Uno-Ven

9401 N. 107th Street (Formerly 9521 N. 107th Street), Milwaukee, WI 53224-1107

DNR BRRTS Activity #: 02-41-118373; FID #: 241017700

## Dear Mr. Buckner:

The Department of Natural Resources (DNR) considers Uno-Ven closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you.

This final closure decision is based on the correspondence and data provided and is issued under chs. NR 726 and 727, Wis. Adm. Code. The DNR reviewed this environmental remediation case for compliance with state laws and standards to maintain consistency in the closure of these cases. A request for remaining actions needed was issued by the DNR through an e-mail on 07/03/2018, and documentation that the conditions in that e-mail was met were received on 12/10/2018.

The subject site operates as a bulk petroleum product storage facility. It has bulk storage tanks, a manifold system, office and warehouse. This industrial property had two releases that were assessed in this remediation project. The first release of 3,700 gallons of unleaded premium gasoline occurred in 1988, in the area west of the trucking loading rack. The second release occurred in 1997 where 550 gallons of unleaded regular gasoline were released from a flange associated with Tank 4. Soil and groundwater investigations were conducted in 1988 and 1997. For remediation, soils around the pipe containing the leak were excavated and disposed off-site and the pipe was repaired. The piping and canopy on-site impeded both the soil and groundwater investigation and further remediation. Natural attenuation groundwater monitoring was implemented for several years and it has been demonstrated that the contaminant plume is stable and/or decreasing. The conditions of closure and continuing obligations required were based on the property being used for light industrial purposes.



# **Continuing Obligations**

The continuing obligations for this site are summarized below. Further details on actions required are found in the section <u>Closure Conditions</u>.

- Groundwater contamination is present at or above ch. NR 140, Wis. Adm. Code enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement and concrete must be maintained over contaminated soil and the DNR must be notified and approve any changes to this barrier.
- If a structural impediment that obstructed a complete site investigation and/or cleanup is removed or modified, additional environmental work must be completed.

The DNR fact sheet "Continuing Obligations for Environmental Protection," RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at <a href="http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf">http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf</a>.

## **DNR** Database

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW) online at dnr.wi.gov and search "BOTW", to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, at dnr.wi.gov and search "RRSM".

The DNR's approval prior to well construction or reconstruction is required in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at dnr.wi.gov and search "3300-254".

All site information is also on file at SER DNR office, at 2300 N. Dr. Martin Luther King Jr. Drive, Milwaukee, WI 53212. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

#### **Prohibited Activities**

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement and concrete are required, as shown on the attached map, Site Map - Barrier, Figure D.2 dated 11/06/15 unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- · replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain
  uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar
  residential exposure settings.

## Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you, and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notification in accordance with the following requirements to:

Department of Natural Resources

Attn: Remediation and Redevelopment Program Environmental Program Associate

2300 N. Dr. Martin Luther King Jr. Dr.

Milwaukee, Wi 53212

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the attached map, Groundwater Residual Contamination Map, Figure B.3.b dated 5/26/17. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)

Soil contamination remains in the existing transfer terminal as indicated on the attached map, Soil Residual Contamination Map, Figure B.2.b dated 5/26/17. If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval.

In addition, all current and future owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)

The pavement and concrete that exists in the specific location shown on the attached map, Site Map – Barrier, Figure D.2 dated 11/06/15, shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch, NR 140, Wis. Adm. Code, and to prevent the direct contact with residual soil contamination that might otherwise pose a threat to human health.

The cover approved for this closure was designed to be protective for a light industrial use setting. Before using the property for residential purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted.

A request may be made to modify or replace a cover or barrier. Before removing or replacing the cover, you must notify the DNR at least 45 days before taking an action. The replacement or modified cover or barrier must be protective of the revised use of the property and must be approved in writing by the DNR prior to implementation.

A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if the use of the property were to change such that a residential exposure would apply. This may include but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single-family residence.

The attached maintenance plan and inspection log (DNR form 4400-305) are to be kept up-to-date and on-site. Inspections shall be conducted annually accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

Structural Impediments (s. 292.12 (2) (b), Wis. Stats., s. NR 726.15, s. NR 727.07, Wis. Adm. Code)

The piping and canopy as shown on the attached map, Site Map - Barrier, Figure D.2 dated 11/06/15, made complete investigation and/or remediation of the soil contamination on this property impracticable. If the structural impediment is to be removed, the property owner shall notify the DNR at least 45 days before removal and conduct an investigation of the degree and extent of the gasoline contamination below the structural impediment. If contamination is found at that time, the contamination shall be properly remediated in accordance with applicable statutes and rules.

# General Wastewater Permits for Construction Related Dewatering Activities

The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction related dewatering activities, including utility and building construction.

If you or any other person plan to conduct such activities, you or that person must contact that program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at <a href="http://dnr.wi.gov/topic/wastewater/GeneralPermits.html">http://dnr.wi.gov/topic/wastewater/GeneralPermits.html</a>. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids and oil and grease, a general permit for Pit/Trench Dewatering may be needed.

## In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats., or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Binyoti F. Amungwafor at 414-263-8607, or at Binyoti.Amungwafor@Wisconsin.gov

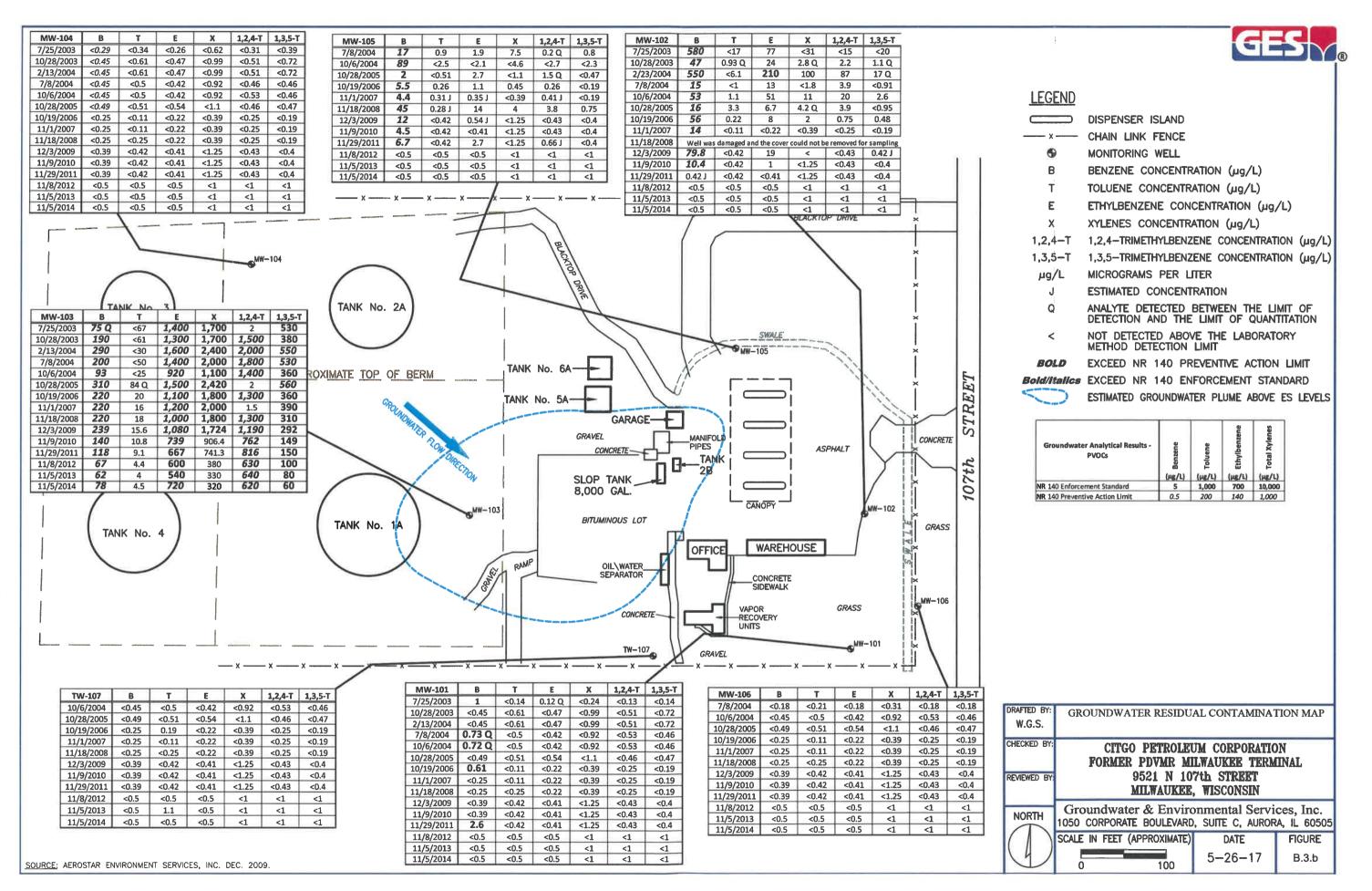
Sincerely,

Pamela A. Mylotta Southeast Region Team Supervisor Remediation & Redevelopment Program

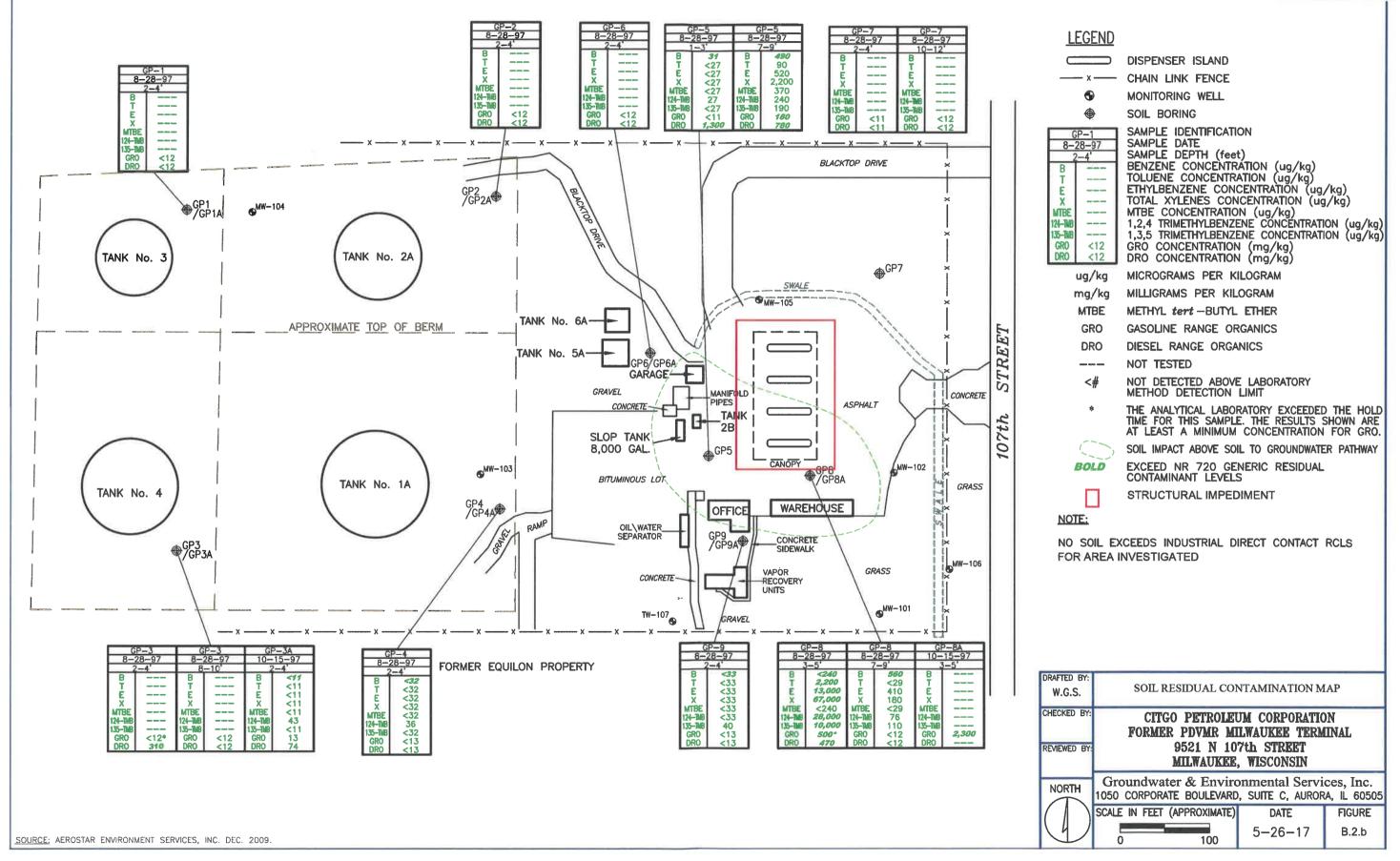
## Attachments:

- Groundwater Residual Contamination Map, Figure B.3.b dated 5/26/17
- Soil Residual Contamination Map, Figure B.2.b dated 5/26/17
- Extent of Cap Map, Site Map Barrier, Figure D.2 dated 11/6/15
- Maintenance Plan, dated 05/01/17
- Inspection Log, DNR Form 4400-305

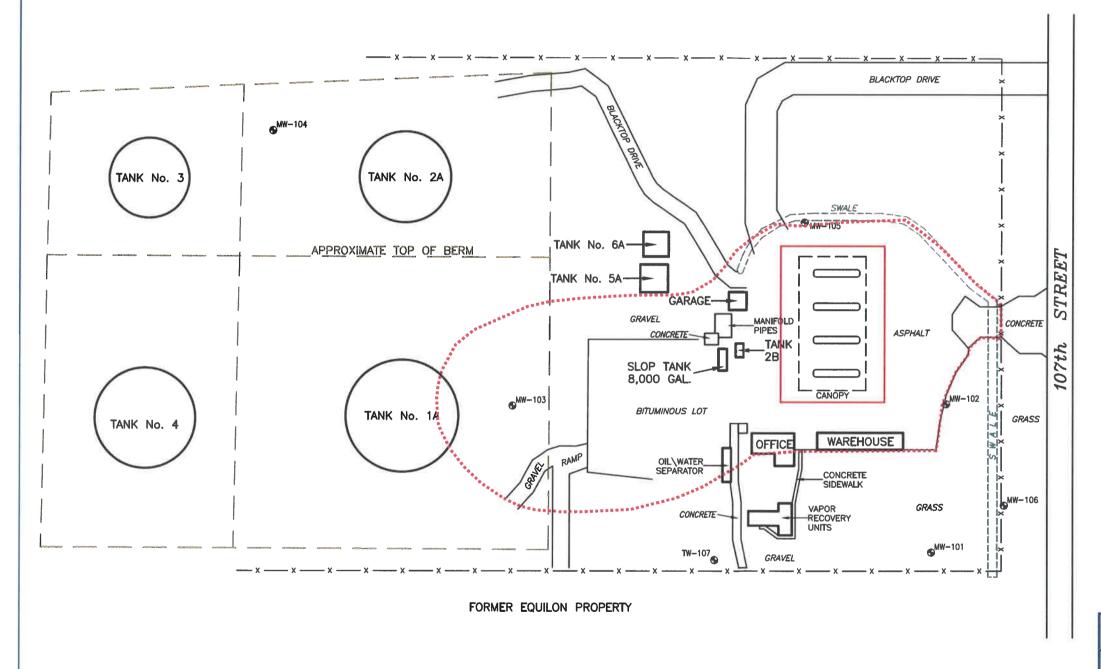
cc: Ms. Amber L Verbick, GES Case File #: 241017700











**LEGEND** 

DISPENSER ISLAND

CHAIN LINK FENCE

MONITORING WELL

Area Covered By Engineered Barrier
For Continuing Obligations

STRUCTURAL IMPEDIMENT

DRAFTED BY: W.A.W. (N.J.)	SITE	MAP- BARRIE	?
CHECKED BY:	FORMER PDVMR MI	LWAUKEE TERM	
REVIEWED BY:		7th STREET , WISCONSIN	
NORTH	Groundwater & Environ 1050 CORPORATE BOULEVARD	, SUITE C, AUROR	ces, Inc. A, IL 60505
$( \ )$	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE
4	0 100	11-6-15	D.2

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.

Uno-Ven (Citgo)
9401 North 107<sup>th</sup> Street (Formerly 9521 North 107<sup>th</sup> Street)
Milwaukee, Wisconsin 53224
BRRTS No. 02-41-118373
PIN #0020071110

**D.1** 

#### Introduction

This document is the Maintenance Plan for a barrier at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing barrier which addresses or occupies the area over the contaminated groundwater plume or soil.

More site-specific information about this property/site may be found in:

- The case file in the DNR Southeast Region office
- BRRTS on the Web (DNR's internet based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Milwaukee County.

## **Description of Contamination**

Soil contaminated by petroleum is located at a depth of 3 to 5 feet near the eastern portion of the source property. Groundwater contaminated by petroleum is centrally located on the source property at a depth of 4 to 8 feet below ground surface. The extent of the soil and groundwater residual contamination are shown on the attached **Figure B.2.b** and **Figure B.3.b**, respectively.

#### Description of the Barrier to be Maintained

The barrier consists of asphalt or concrete that is located on the source property as shown on Figure D.2. Photographs of the barrier are provided in D.3.

## Cover/Building/Slab/Barrier Purpose

The asphalt/concrete barrier over the contaminated soil and groundwater plume serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Based on the current use of the property, light industrial, the barrier should function as intended unless disturbed.

## Description of the Structural Impediment

The piping and canopy area are considered a structural impediment to the completion of site investigation and/or remediation and this impediment is on the source property as shown on Figure D.2. Photographs of the structural impediment are provided in D.3.

# **Annual Inspection**

The asphalt/concrete barrier overlying the soil and groundwater plume and as depicted in **Figure D.2.** will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as **D.4**, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place to keep it at the site, the plan will be kept at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

## **Maintenance Activities**

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt/concrete barrier overlying the soil and groundwater plume are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt/concrete barrier, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site at the address of the property owner the property owner must make it available to all interested parties for viewing.

# Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property where asphalt/concrete barrier is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; and 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether

further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

## Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

**Contact Information** 

May 2017

Site Owner and Operator:

Scott Buckner

2316 Terminal Drive

Arlington leights, Illinois 60005

847-867-2420

Signature:

Consultant:

**Groundwater & Environmental Services** 

1050 Corporate Blvd, Suite C

Aurora, Illinois 60505

866-455-2419

DNR:

**Binyoti Amungwafor** 

2300 North Martin Luther King Drive

Milwaukee, Wisconsin 53212

414-263-8607

## **Location Maps**

Soil and groundwater analytical maps are provided as **Figure B.2.a** and **Figure B.2.b**, respectively. The asphalt/concrete barrier detailed in this maintenance plan is illustrated on **Figure D.2**. The structural impediment is illustrated on **Figure D.2**.

## Continuing Obligations Inspection and Maintenance Log

The source property will utilize form 4400-305 as provided by the WDNR. A copy of the 4400-305 form is provided in **D.4**.

State of Wisconsin Department of Natural Resources dnr.wi.gov

# **Continuing Obligations Inspection and Maintenance Log**

Form 4400-305 (2/14)

Page 1 of 2

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site	e) Name				BRRTS No.				
Uno-Ven					02	2-41-118373			
Inspections	annual     semi-a	=	pproval letter):	When submittal of this form is required, submit the form electronically to the DNR promanager. An electronic version of this filled out form, or a scanned version may be set the following email address (see closure approval letter):  binyoti.amungwafor@wisconsin.gov					
Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or mainte	reco	Previous mmendations plemented?	Photographs taken and attached?		
		monitoring well cover/barrier vapor mitigation system other:			0	Y ON	OYON		
		monitoring well cover/barrier vapor mitigation system other:			0	Y ON	OYON		
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		monitoring well cover/barrier vapor mitigation system other:			0	Y ON	OYON		

02-41-118373 BRRTS No.	Uno-Ven Activity (Site) Nam	ie .	_	Continuing Obligation Form 4400-305 (2/14)	ations Inspection and Mai	ntenance Log Page 2 of 2
{Click to Add/Ed	lit Image}	Date added:	{Clic	k to Add/Edit Image}	Date added:	

Title:

Title:

# Case Closure - GIS Registry Form 4400-202 (R 3/15) Page 1 of 14

## SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

Site Information		TWINE S	
BRRTS No.	VPLE No.		
02-41-118373			
Parcel ID No.			
00-20-071110			
FID No.	WTM Coordinates	3	
241017700	X (70007.6	20200	2.5
BRRTS Activity (Site) Name	678887.6 WTM Coordinates Represent:	30388	3.3
		10.1	
Uno-Ven Site Address		rcel Cente	STATE OF THE STATE
	City	State	ZIP Code
9401 N 107th St.(Formerly 9521 N. 107th St.)	Milwaukee	WI	53224-1107
Acres Ready For Use	34		
	·-		
Responsible Party (RP) Name			
Scott Buckner			
Company Name			
CITGO Petroleum Corporation	Y'		
Mailing Address	City	State	ZIP Code
2316 Terminal Drive	Arlington Heights	IL	60005
Phone Number	Email	-	
(847) 867-2420	sbuckne@citgo.com		
Check here if the RP is the owner of the source property.			
Environmental Consultant Name			
Melissa M. Blaha			
Consulting Firm			
Groundwater & Environmental Services, Inc.			
Mailing Address	City	State	ZIP Code
1050 Corporate Boulevard, Suite C	Aurora	IL	60505
Phone Number	Email		
(866) 455-2419	mblaha@gesonline.com		
Fees and Mailing of Closure Request		RUN I	
<ol> <li>Send a copy of page one of this form and the applicable ch. N (Environmental Program Associate) at http://dnr.wi.gov/topic/</li> </ol>	R 749, Wis. Adm. Code, fee(s) to the DNR Brownfields/Contact.html. Check all fees	Regional I that apply	EPA y:
\$1,050 Closure Fee	\$300 Database Fee for Soil		
\$350 Database Fee for Groundwater or	Total Amount of Payment \$		
Monitoring Wells (Not Abandoned)	Resubmittal, Fees Previously Paid	d	

Send one paper copy and one e-copy on compact disk of the entire closure package to the Regional Project Manager
assigned to your site. Submit as <u>unbound, separate documents</u> in the order and with the titles prescribed by this form. For
electronic document submittal requirements, see <a href="http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf">http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf</a>.

#### Site Summary

If any portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected.

#### 1. General Site Information and Site History

- A. Site Location: Describe the physical location of the site, both generally and specific to its immediate surroundings. The Subject Property is located at 9521 North 107th Street in Milwaukee, Wisconsin. The Subject Property is located west of north 107th Street, immediately south of West County Line Road. With Respect the federal coordinate system, the Subject Property is located in Township 8 North, Range 21 East in Section 6. The Subject Property is bordered to the north by County Line Road, followed by undeveloped farm fields, to the east by North 107th Street, followed by APV Refinery Products (light industrial), to the south by US Oil Milwaukee Central Terminal (light industrial), and to the west by approximately one-half mile of fallow field to Wasaukee Road, followed by light industrial facilities.
- B. Prior and current site usage: Specifically describe the current and historic occupancy and types of use.

  In September 1992, a Phase I Environmental Site Assessment (ESA) was completed for the Subject Property. According to the Phase I Report, the Subject Property has operated as a light oil terminal since 1961. Prior to 1961, the Subject Property was undeveloped farmland.
- C. Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
  - The current zoning is IL1. This is associated with Industrial-Light. This information was obtained from the City of Milwaukee Department of City Development website. Documentation has been provided in Attachment G.
- D. Describe how and when site contamination was discovered. In 1988, a subsurface unleaded premium gasoline pipeline was found to be leaking in an area just west of the truck loading rack. In November 1991, a release from a flange associated with Tank 4 was detected.
- E. Describe the type(s) and source(s) or suspected source(s) of contamination.
  Two releases have occurred at the Subject Property. In 1988, a subsurface pipeline was found to be leaking. It was estimated that 3,700 gallons of unleaded premium gasoline leaked in an area just west of the trucking loading rack. A site investigation was completed immediately following this release. In November 1991, approximately 550 gallons of unleaded regular gasoline was released from a flange associated with Tank 4. In both instances, all but residual amounts of the spill product were recovered.
- F. Other relevant site description information (or enter Not Applicable). Two soil and groundwater investigations have been completed for the Subject Property. The first occurred in 1988 immediately following the first release. The second investigation occurred in 1997. Based on the correspondence provided on August 23, 2012, annual groundwater sampling has been occurring at the Subject Property since 2003.
- G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.

  The subject property is listed as Uno-Ven with a location name of US Oil Milwaukee North Terminal. The only BRRTS number associated with the Subject Property is 0241118373. This incident is being addressed in this report.
- H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property. Two facilities are located to the east across North 107th Street. Ivarson/QMS Inc (BRRTS 0241275896) has been conditionally closed and APV Refinery Products (BRRTS 0241000994) has been closed. One facility with two incidents is abutting the the Subject Property to the south. US Milwaukee Central Terminal Tank has two BRRTS numbers. BRRTS 0241000994 is associated with a spill from tank 305 and remains open. BRRTS 0241548754 is associated with a 450 gallon fuel oil spill from tank 304 and has been closed under NR 708.29.

## 2. General Site Conditions

#### A. Soil/Geology

- i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
  - A site investigation was completed at the Subject Property on August 28, 1997. Based on this investigation, soil consists of six inches of clay topsoil grading to sand. Below the surface layer the soil is red/brown to gray/brown clay with trace amounts of sand or gravel. The investigation was completed to a depth of 10 feet with groundwater encountered at depths between 4 and 5 feet below ground surface (bgs).
- ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.

  There are no waste deposits located on the Subject Property. Fill material is limited to surface areas directly under the asphalt/concrete, buildings and associated piping. Additional fill material is utilized as berms around the existing above ground bulk storage tanks.
- iii. Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation. The investigation was completed to a depth of 10 feet bgs. Bedrock was not encountered during this investigation.

BRRTS No.

Activity (Site) Name

Form 4400-202 (R 3/15)

iv. Describe the nature and locations of current surface cover(s) across the site (e.g., natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).

The facility is an active petroleum terminal. The western half of the property consists of above ground bulk storage tanks. The area around these tanks is covered in gravel with elevated gravel berms. The eastern portion of the property consists of the office building, warehouse and transfer manifold. This area is covered by asphalt around the buildings and piping. Areas not covered by the asphalt are covered by grass.

#### B. Groundwater

- Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, including high and low water table elevation and whether free product affects measurement of water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
  - Since the initial releases in 1988 and 1991, no free product was encountered during the site investigation/monitoring activities. The Subject Property has been undergoing groundwater monitored and groundwater elevation gauging since 2003. Groundwater was encountered at a depth of 5 feet based on boring logs provided in a 1997 investigation. The geology for the boring logs show the groundwater in red/brown to gray/brown clay with trace amounts of sand that extend to a depth of 10 feet below ground surface (maximum depth explored during the investigation). Two cross sections showing the geology and groundwater elevations are provided on Figures B.3.b and B.3.c. The groundwater elevations collected during historical sampling events show groundwater between 2 feet and 6 feet bgs for all wells except for MW-101. MW-101 shows groundwater between 7 and 8 feet bgs. Monitoring well MW-101 is the well farthest down gradient. Groundwater contours have been illustrated on B.3.e and elevations have been provided on Table A.6.
- Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if
  - Groundwater contours maps from the last four groundwater sampling events indicate groundwater flows in a southeast direction. The groundwater flow direction has been illustrated on Figure B.3.e.
- Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.
  - Two site investigation were completed for the Subject Property. The first was completed in 1988 and the second one in 1997. As part of the 1988 investigation, ERT found that the vertical hydraulic conductivity was 1E-9 centimeters per second (cm/sec) and the horizontal conductivity was 1E-5 cm/sec. Based on a gradient of 0.02 and assumed 40% porosity of clay, the velocity of groundwater flow is on the order of 0.01 feet per day. Groundwater monitoring wells were installed to facilitate groundwater monitoring/groundwater gauging from 2003 to present. The monitoring wells liquid elevations were utilized to obtain hydraulic gradient and groundwater flow direction. The groundwater flow has historically been to the southeast. The three wells located furthest down gradient (MW-101, MW-106 and MW-107) have always been below PAL levels except for laboratory detection limit excursions. However, they have always been below the ES level.
- Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval). GES reviewed well search records provided in the Environmental Data Resource (EDR) Radius Map Report. Based upon the findings of this report, no private or municipal wells are located within 1200 feet of the Subject Property.

## 3. Site Investigation Summary

#### A. General

- Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.
  - In order to address the 1988 release, an site investigation was completed on May 31, 1988 by ERT. Subsequently, a initial phase I ESA was completed for the Subject Property in 1997. A baseline sampling event to collect soil and groundwater samples was completed April 20, 1998. This report was provided to the WDNR in February 1999. Groundwater sampling has been completed at a minimum annually since 2003. The results from the groundwater monitoring activities have been provided on Table A.1 and Table A.6 The analytical results have been illustrated on Figure B.3.d and Figure B.3.e.
- Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts. Soil and groundwater impacts are limited to the Subject Property. The estimated soil and groundwater plume area have been illustrated on Figure B.2.a and B.3.d. Perimeter wells downgradient have been below PAL levels for the last three years and below the ES levels for more than eight years.
- iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.
  - The Subject Property consists of above ground bulk storage tanks, manifold system, office and warehouse along with associated piping as the facility operates as a petroleum terminal. The piping and canopy area are considered a structural

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impediment to the completion of site investigation and/or remediation and this impediment is on the source property. The buildings and the associated piping have not restricted site investigation/monitoring and are not being utilized as barriers.

#### B. Soil

- Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.
  - The soil concentrations detected at the Subject Property are primarily located in the area of the dispenser canopy and manifold piping. This property is utilized as an operational terminal (industrial) property loading of petroleum fuels. Therefore, the highest concentrations detected at the Subject Property was in soil boring GP-8 (3 to 5 feet bgs) next to the loading canopy. The concentrations are detailed in Section B.ii below.
- ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column. Soil concentrations at the Subject Property consist of benzene, toluene, ethylbenzene, total xylenes, methyl-tertiary butyl ether and trimethylbenzene. The highest concentrations were detected in GP-8 at a depth of 3-5 feet as illustrated on Table A.2 and Figure B.2.a. The concentrations are as follows: benzene [<240 migrograms per kilogram(ug/kg)], toluene (2,200 ug/kg), ethylbenzene (13,000 ug/kg), total xylenes (67,000 ug/kg), MTBE (<240 ug/kg), 1,2,4-trimethylbenzene (28,000 ug/kg), and 1,3,5 trimethylbenzene (10,000 ug/kg). These soil samples were collected on August 28, 1997 and were compared to an industrial use property. The soil contamination was detected at a depth of 3 to 5 feet bgs where soils consist of clay with trace amounts of sand.
- iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.
  - In order to address the residual soil concentrations, the direct contact (DC) residual contaminant levels (RCL) were evaluated for the highest concentrations detected at the Subject Property. The WDNR RCL spreadsheet (provided at http://dnr.wi.gov/topic/Brownfields/professionals.html#tabx2) was utilized for this evaluation. The Subject Property is zoned as IL1 which is defined as Industrial-Light (IL). The zoning information is provided in F.3. The results of the RCL spreadsheet calculations indicate that the Subject Property has a cumulative Hazard Index of 0.0498 and a cumulative Cancer Risk of 4.3 E-07. A comparison of all the analytical data indicates that there are no individual exceedences and the cancer risk is below cumulative calculated value. The results are provided on Table A.2 and the RCL summary pages provided in C.3.

In order to address the RCL for soil that is protective for groundwater quality, an evaluation is made with the trends supported by the groundwater concentrations. A groundwater evaluation was made with the Mann-Kendall and Mann-Whitney U Test. The evaluation spreadsheets are provided in C.3. Groundwater at the Subject Property shows a decreasing trend in all the wells with historic groundwater above ES levels. This evaluation indicates that natural attenuation is occurring at the Subject Property and that residual soil concentrations are not impacting the groundwater quality at the Subject Property.

#### C. Groundwater

 Describe degree and extent of groundwater contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

The extent of groundwater contamination is centrally located on the Subject Property. The highest concentrations are located in monitoring well MW-103 located near Tank Number 1A. Based upon the residual concentrations on site, this is associated with the above ground piping transferring petroleum from the above ground bulk storage to the loading terminal. This corresponds to historic activities associated with the storage tanks and identified during the Phase I report completed in 1997. Storage and equipment buildings are located within the residual plume area but these are slab on grade construction and not fully manned. The office building and warehouse are located east of the plume area.

A review of the Environmental Data Resources (EDR) Radius Map Report, there are no potable wells located within one quarter of a mile from the Subject Property.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.

There is no free product located at the Subject Property. Groundwater has been monitored at the Subject Property since 2003. The smear zone ranges from approximately 3 feet below ground surface (bgs) to 6 feet bgs.

## D. Vapor

i. Describe how the vapor migration pathway was assessed, including locations where vapor, soil gas, or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.

The Subject Property is an active industrial petroleum terminal. The facility maintains multiple bulk storage tanks and the associated transfer piping. The operational system is in place to inspect the piping and monitor if and when a release occurs at the facility. The continued remediation activities at this facility include the groundwater monitoring events to

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evaluate the historical impacts. Based upon this evaluation, groundwater trends have indicated a significant decreasing trend and concentrations have been reduced by 75%. This indicates that natural attenuation is occurring at the facility since the historic releases have occurred. Based upon the significant reduction in groundwater concentrations and the natural attenuation occurring over the last ten years, a vapor investigation is not required. Groundwater concentrations are provided on Table A.1. The natural attenuation evaluation including the Mann-Kendall and Mann-Whitney spreadsheets have been provided in C.3.

Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).

The Subject Property is an active industrial petroleum terminal. The facility continually monitors the tanks and pipeline for releases. This report is addressing historic releases with confirmation of natural attenuation in the groundwater. Based on this information the vapor assessment is not necessary.

#### E. Surface Water and Sediment

- Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.
  - The Subject Property does not contain any surface water. A small retention pond is located on the property to the north but is located up gradient from the release. Therefore, this pathway does not apply to the Subject Property.
- Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.
  - See Section E.i. The surface water pathway does not apply to the Subject Property.

#### Remedial Actions Implemented and Residual Levels at Closure

- A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.
  - In order to address the 1988 release, a site investigation was completed on May 31, 1988 by ERT. Subsequently, a Phase I ESA was completed for the Subject Property in 1997. A baseline sampling event to collect soil and groundwater samples was completed April 20, 1998. This report was provided to the WDNR in February 1999. Groundwater sampling has been completed at a minimum annually since 2003. The results from the groundwater monitoring activities have been provided on Table A.1 and Table A.6 The analytical results have been illustrated on Figure B.3.d and Figure B.3.e.
- Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code. Two releases have occurred at the property. In 1988, a subsurface pipeline was found to be leaking. It was estimated that 3,700 gallons of unleaded premium gasoline leaked in an area just west of the trucking loading rack. In November 1991, approximately 550 gallons of unleaded regular gasoline was released from a flange associated with Tank 4.
  - As part of the 1988 release, the pipe containing the leak had been excavated and repaired. There is no details regarding the 1991 release. In both instances, all but residual amounts of the spill product were recovered.
- C. Describe the active remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.
  - Active remediation has been limited to excavation of soils to expose product piping to repair leaks during the initial release. Limited information is provided in the ERT site investigation report dated May 31, 1988.
- D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.
  - Remedial activities include natural attenuation at the Subject Property. Groundwater at the facility has been continuously monitored to show decreasing trends and verifying natural attenuation is occurring.
- E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.
  - The residual contamination that will remain on the Subject Property consists of BTEX constituents in the soil and groundwater. The groundwater is limited to the area surrounding monitoring well MW-103. Even though the groundwater is still above the ES standards, the concentration has been reduced by 75% and down gradient wells have shown that contaminants have remained on site.
  - Soil concentrations are limited to the area around the existing transfer terminal. Concentrations detected in the soil are below the RCL for direct contact but above for soil to groundwater. However, as indicated above, the Subject Property has shown natural attenuation occurring in the groundwater which indicates that the soil is not impacting the groundwater. Estimated soil and groundwater plumes are shown on Figure B.2 and B.3.d.
- F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact. In order to address the residual soil concentrations, the DC RCLs were evaluated for the highest concentrations detected at

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the Subject Property. The WDNR RCL spreadsheet (provided at http://dnr.wi.gov/topic/Brownfields/professionals. html#tabx2) was utilized for this evaluation. The Subject Property is zoned as IL1 which is defined as Industrial-Light (IL). The zoning information is provided in F.3. The results of the RCL spreadsheet calculations indicated that the Subject Property has a cumulative Hazard Index of 0.0498 and a cumulative Cancer Risk of 4.3 E-07. A comparison of all the analytical data indicates that there are no individual exceedences and the cancer risk is below cumulative calculated value. The results are provided on Table A.2 and the RCL summary pages provided in C.3.

G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

Soil analytical results for the Subject Property show concentrations above the soil standards for the groundwater pathway including most of the samples with higher elevation limits.

In order to address the RCL for soil that is protective for groundwater quality, an evaluation is made with the trends supported by the groundwater concentrations. A groundwater evaluation was made with the Mann-Kendall and Mann-Whitney U Test. Groundwater at the Subject Property shows a decreasing trend in all the wells with historic groundwater above ES levels. This evaluation indicates that natural attenuation is occurring at the Subject Property and that residual soil concentrations are not impacting the groundwater. The groundwater evaluation has been provided in C.3 and detailed in Section 4.I.

H. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

Soil and groundwater have been evaluated for the Subject Property. Based on the RCL spreadsheet, residual soil concentrations are below the DC pathway for industrial properties. Therefore, the Subject Property will be restricted to industrial use as it is currently zoned. The zoning information is provided in F.3 and the RCL comparison is illustrated on Table A.2 and C.3.

A groundwater evaluation was completed using the Mann-Kendall and Mann-Whitney U Test to illustrate that concentrations at the Subject Property are stable and/or decreasing. This evaluation indicates that natural attenuation is occurring at the Subject Property. Residual groundwater shows that only monitoring well MW-103 is above ES standards and all other wells are below the PAL levels for the last three years. The monitoring wells below the PAL are both up gradient and down gradient from MW-103. The stability analysis has been provided in C.3.

- If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration (e.g., stable or receding groundwater plume). A groundwater evaluation was completed using the Mann-Kendall and Mann-Whitney U Test to illustrate that concentrations at the Subject Property are stable and/or decreasing. This evaluation indicates that natural attenuation is occurring at the Subject Property. Residual groundwater shows that only monitoring well MW-103 is above ES standards and all other wells are below the PAL levels for the last three years. The concentrations in MW-103 have decreased 75% since 2005. The monitoring wells below the PAL are both up gradient and down gradient from MW-103. The stability analysis has been provided in C.3.
- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

Soil and groundwater have been evaluated for the Subject Property. Based on the RCL spreadsheet, residual soil concentrations are below the DC pathway for industrial properties. Therefore, the Subject Property will be restricted to industrial use as it is currently zoned for. The zoning information is provided in F.3 and the RCL comparison is illustrated on Table A.2 and C.3.

A groundwater evaluation was completed using the Mann-Kendall and Mann-Whitney U Test to illustrate that concentrations at the site are stable and/or decreasing. This evaluation indicates that natural attenuation is occurring at the Subject Property. Residual groundwater shows that only monitoring well MW-103 is above ES standards and all other wells are below the PAL levels for the last three years. The monitoring wells below the PAL are both up gradient and down gradient from MW-103. The stability analysis has been provided in C.3.

The facility maintains multiple bulk storage tanks and the associated transfer piping. The operational system is in place to inspect the piping and monitor if and when a release occurs at the facility. The continued remediation activities at this facility include the groundwater monitoring events to evaluate the historical impacts. Based upon this evaluation, groundwater trends have indicated a significant decreasing trend and concentrations have been reduced by 75%. This indicates that natural attenuation is occurring at the facility since the historic releases have occurred. Based upon the significant reduction in groundwater concentrations and the natural attenuation occurring over the last ten years, a vapor investigation is not required.

K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain. The only remedial equipment remaining on the Subject Property are the existing monitoring wells. These wells will be abandoned once closure is approved. No other hardware is anticipated to be left in place.

- L. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances. Groundwater concentrations at the Subject Property are all below the PAL level with the exception of MW-103. Even though the groundwater is still above the ES standards, the concentration has been reduced by 75% and down gradient wells have shown that contaminants have remained on site. The decreasing trend has been evaluated in C.3.
- M. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.
  - The Subject Property is an active industrial petroleum terminal. The facility maintains multiple bulk storage tanks and the associated transfer piping. The operational system is in place to inspect the piping and monitor if and when a release occurs at the facility. The continued remediation activities at this facility include the groundwater monitoring events to evaluate the historical impacts. Based upon this evaluation, groundwater trends have indicated a significant decreasing trend and concentrations have been reduced by 75%. This indicates that natural attenuation is occurring at the facility since the historic releases have occurred. Based upon the significant reduction in groundwater concentrations and the natural attenuation occurring over the last ten years, a vapor investigation is not required. Groundwater concentrations are provided on Table A.1. The natural attenuation evaluation including the Mann-Kendall and Mann-Whitney spreadsheets have been provided in C.3.
- N. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed. The Subject Property does not contain surface water. A retention pond is located on the adjacent property to the north. Based upon the groundwater gradient going to the southwest, the release does not pose a threat to the surface water standards

of this retention pond. Therefore, this pathway is not applicable to the Subject Property.

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 Continuing Obligations: Situations where sites, including all affected properties and rights-of-way (ROWs), are included on the DNR's GIS Registry. In certain situations, maintenance plans are also required, and must be included in Attachment D.

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

,				ted to another site are addressed in Attachment E.)	Ÿ
	This situation property of	n applies to t or Right of Wa	he following y (ROW):		
	Property Type:			Case Closure Situation - Continuing Obligation Inclusion on the GIS Registry is Required (ii xiv.)	Maintenance Plan
	Source Property	Affected Property (Off-Source)	ROW		Required
i.		$\boxtimes$		None of the following situations apply to this case closure request.	NA
ii.				Residual groundwater contamination exceeds ch. NR 140 ESs.	NA
iii.	$\boxtimes$			Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.				Monitoring Wells Remain:	
				Not Abandoned (filled and sealed)	NA
				Continued Monitoring (requested or required)	Yes
٧.	$\boxtimes$			Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	$\boxtimes$			Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	$\boxtimes$			Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.				Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.			NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
X.			NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.			NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii			NA	Vapor: Commercial/industrial exposure assumptions used.	NA
xiii.				Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.				Site-specific situation: (e. g., fencing, methane monitoring, other) (discuss with project manager before submitting the closure request)	Site specific
	Jnderground A. Were any or remedia	tanks, piping		sociated tank system components removed as part of the investigation	Yes   No
E	B. Do any up	graded tanks	meeting the	e requirements of ch. ATCP 93, Wis. Adm. Code, exist on the property?	Yes O No
(	C. If the answ	ver to questic	n 6.B. is yes	s, is the leak detection system currently being monitored?	Yes ( No

## General Instructions

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

#### Data Tables (Attachment A)

#### **Directions for Data Tables:**

- Use bold and italics font for information of importance on tables and figures. Use bold font for ch. NR 140, Wis. Adm. Code ES
  attainments or exceedances, and italicized font for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use bold font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding
  groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer
  risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- · Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e., do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

#### A. Data Tables

- A.1. Groundwater Analytical Table(s): Table(s) showing the analytical results and collection dates for all groundwater sampling points (e.g., monitoring wells, temporary wells, sumps, extraction wells, potable wells) for which samples have been collected.
- A.2. Soil Analytical Results Table(s): Table(s) showing all soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).
- A.3. **Residual Soil Contamination Table(s):** Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.
- A.4. Vapor Analytical Table(s): Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.
- A.5. Other Media of Concern (e.g., sediment or surface water): Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, and time period for sample collection.
- A.6. Water Level Elevations: Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.
- A.7. Other: This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

## Maps, Figures and Photos (Attachment B)

## **Directions for Maps, Figures and Photos:**

- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted
  in a larger electronic size than 11 x 17 inches, in a PDF readable by the Adobe Acrobat Reader. However, those larger-size
  documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions
  of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis. Adm. Code.
- Include all sample locations.
- · Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.
- Maps, figures and photos should be dated to reflect the most recent revision.

#### **B.1.** Location Maps

- B.1.a. Location Map: A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.
- B.1.b. Detailed Site Map: A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.
- B.1.c. RR Sites Map: From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

**B.2.** Soil Figures

- B.2.a. Soil Contamination: Figure(s) showing the location of <u>all</u> identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).
- B.2.b. Residual Soil Contamination: Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedence (0-4 foot depth).

**B.3.** Groundwater Figures

- B.3.a. Geologic Cross-Section Figure(s): One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:
  - Source location(s) and vertical extent of residual soil contamination exceeding an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 ES.
  - Surface features, including buildings and basements, and show surface elevation changes.
  - Any areas of active remediation within the cross section path, such as excavations or treatment zones.
  - Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1.b.)
- B.3.b. Groundwater Isoconcentration: Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, PAL and/or an ES. Indicate the date and direction of groundwater flow based on the most recent sampling data.
- B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.
- B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been abandoned.

B.4. Vapor Maps and Other Media

- B.4.a. Vapor Intrusion Map: Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway in relation to residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.
- B.4.b. Other media of concern (e.g., sediment or surface water): Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.
- B.4.c. Other: Include any other relevant maps and figures not otherwise noted above. (This section may remain blank).
- B.5. Structural Impediment Photos: One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

## Documentation of Remedial Action (Attachment C)

## **Directions for Documentation of Remedial Action:**

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted
  on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc.).
- If the documentation requested below has already been submitted to the DNR, please note the title and date of the report for that
  particular document requested.
  - C.1. Site investigation documentation, that has not otherwise been submitted with the Site Investigation Report.
  - C.2. Investigative waste disposal documentation.
  - C.3. Provide a description of the methodology used along with all supporting documentation if the RCLs are different than those contained in the Department's RCL Spreadsheet available at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.
  - C.4. Construction documentation or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.
  - C.5. Decommissioning of Remedial Systems. Include plans to properly abandon any systems or equipment.
  - C.6. Other. Include any other relevant documentation not otherwise noted above (This section may remain blank).

## Maintenance Plan(s) and Photographs (Attachment D)

## **Directions for Maintenance Plans and Photographs:**

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3

- D.1. Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:
  - Provide brief descriptions of the type, depth and location of residual contamination.

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- Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
- Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
- Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- D.2. Location map(s) which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) all property boundaries.
- D.3. Photographs for site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.
- D.4. Inspection log, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf.

#### Monitoring Well Information (Attachment E)

#### **Directions for Monitoring Well Information:**

For all wells that will remain in use, be transferred to another party, or that could not be located; attach monitoring well construction and development forms (DNR Form 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400\_113\_1\_2.pdf)

0-1	 One	

ect C	ne:							
No monitoring wells were installed as part of this response action.								
All n	nonitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site							
Select One or More:								
Ш	Not all monitoring wells can be located, despite good faith efforts. Attachment E must include a description of efforts made to locate the wells.							
	One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reasor (s) the well(s) will remain in use. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.							
	One or more monitoring wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s). Provide documentation from the party accepting future responsibility for monitoring well(s).							
	No r							

# Source Legal Documents (Attachment F)

## **Directions for Source Legal Documents:**

Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

- F.1. Deed: The most recent deed with legal description clearly listed.
  - Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- F.2. Certified Survey Map: A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- F.3. Verification of Zoning: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- Signed Statement: A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.

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## Notifications to Owners of Affected Properties (Attachment G)

**Directions for Notifications to Owners of Affected Properties:** 

Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31- 19.39, Wis. Stats.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements http://dnr.wi.gov/files/PDF/pubs/rr/RR606.pdf.

State law requires that the responsible party provide a 30-day, written advance notification to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned. Use form 4400-286, Notification of Continuing Obligations and Residual Contamination, at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation. (These items will not be placed on the GIS Registry.)

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- Deed: The most recent deed with legal descriptions clearly listed for all affected properties.
   Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Certified Survey Map: A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- Verification of Zoning: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- Signed Statement: A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

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N	lotifications to Owners of Affected Properties	(Attachment G		18 2 30	LITTE D	Section 1			750		-01			-		500		120	
						Reasons Notification Letter Sent:													
ID	Address of Affected Property	Parcel ID No.	Date of Receipt of Letter	Type of Property Owner	WTMX	WTMY	Residual Groundwater Contamination = or > ES	Residual Soil Contamination Exceeds RCLs	Monitoring Wells: Not Abandoned	Monitoring Wells: Continued Monitoring	Cover/Barrier/Engineered Control	Structural Impediment	Industrial RCLs Met/Applied	Vapor Mitigation System(VMS)	Dewatering System Needed for VMS	Compounds of Concern in Use	strial Vapor Exposure	Residual Volatile Contamination Poses Future Risk of Vapor Intrusion	Site Specification Situation
Α																			
В																			
С																			
D																			

-	1-118373 TS No.	Uno-Ven Activity (Site) Name		Case Closure - GIS Form 4400-202 (R 3/15)	Registry Page 14 of 14
Sign	natures and Findings	for Closure Determination	AND DESCRIPTION OF THE PARTY OF	1 0311 4 100 202 (10 01 10)	Page 14 01 14
Chec	ck the correct box for the IR 712, Wis. Adm. Coo	nis case closure request, and have de, sign this document.	either a professional enginee	r or a hydrogeologist, as define	ed in
$\boxtimes$	A response action(s) for	or this site addresses groundwater	contamination (including natu	ral attenuation remedies).	
	The response action(s)	) for this site addresses media othe	r than groundwater.		
Eng	ineering Certification		SALAR SERVICE		
closi Con- closi to 72 inves	e State of Wisconsir ure request has been duct in ch. A–E 8, W ure request is correct 26, Wis. Adm. Code. stigation has been considered in es."  Kevin Mi		the requirements of ch. A- inder my supervision in acc best of my knowledge, all is ed in compliance with all a impliance with the rules, in . NR 716, Wis. Adm. Code NR 718, NR 720, NR 722, i	cordance with the Rules of Finformation contained in this pplicable requirements in charge professional opinion and all necessary NR 724 and NR 736 WG.  KEVIN Title	this case Professional s case ns. NR 700
No.	Signa		Date	P.E. Stanto and Num	EN CHIMINI
	ogeologist Certificat		The state of the state of		
this of super with reaccord	ase closure request rvision and, in compl respect to compliand rdance with ch. NR 7	1), Wis. Adm. Code, and that, to is correct and the document walliance with all applicable require with the rules, in my profession of the Wis. Adm. Code, and all new NR 720, NR 724 and the Region of the Region o	as prepared by me or preparents in chs. NR 700 to 7 preparents in chs. NR 700 to 7 preparents in cessary remedial actions l	ared by me or prepared und '26, Wis. Adm. Code. Speci ation has been conducted in have been completed in acc	er my fically,
	Pr	Inted Name	dank with Add damines Zook da Tay wife . and aparting words date damines for the Add damines of the Add dami	Title	44
-		Signature	Міўдзійначаніцу богу, штаў машайцання	Date	PANELINA AND AND AND AND AND AND AND AND AND A

# ATTACHMENT A – DATA TABLES

- A.1 GROUNDWATER ANALYTICAL TABLE
- A.2 SOIL ANALYTICAL RESULTS TABLE
- **A.3 RESIDUAL SOIL CONTAMINATION TABLE** This table is not provided because there are less than 15 soil samples collected
- **A.4 VAPOR ANALYTICAL TABLE** This table is not provided because a vapor evaluation is not required for the Subject Property
- **A.5 OTHER MEDIA OF CONCERN** This table is not provided because soil and groundwater is evaluated on Table A.1 and Table A.2. There are no surface water concerns as the only retention pond is located up gradient on the adjacent property.

## A.6 WATER LEVEL ELEVATIONS

**A.7 OTHER** – This table is not provided because the remediation evaluation has been provided in C.3. No other concerns need to be addressed other than the soil and groundwater in Table A.1 and Table A.2

## GROUNDWATER ANALYTICAL TABLE

Groundwater A	Analytical F	tesults - PVOCs	元 % Benzene で	(አጀላ) Toluene	所 Ethylbenzene C	নি ি Total Xylenes	(hg/h) MTBE	নি তি Total Petroleum Hydrocarbons	(列 & Grease	हि 1,2,4-Trimethylbenzene	हिं 1,3,5-Trimethylbenzene	五 (天) Total Trimethylbenzene	3 Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)
NR 140 Enforce	ment Stand	dard	5	1,000	700	10,000	60					480		
NR 140 Prevent	ive Action	Limit	0.5	200	140	1,000	12					96		
Sample	Sample	Sample												
Location	Туре	Date					,							
MW-1		3/24/1988	<20	<20		<20		<2,000						
MW-2		3/24/1988	<20	<20		<20		<2,000						
MW-2D		3/24/1988	<20	<20		<20		<2,000						
MW-3		3/24/1988	<20	<20		<20		<2,000						
S.W. Sample #1 (Ditch)		3/24/1988	14,000	18,000		9,400		2,000	8,800					
GP-1		8/28/1997						0					<0.1 **	<0.1
GP-1A GP-2	-	10/17/1997 8/28/1997						0					<0.1	<0.1
GP-2A		10/17/1997						0					<0.1 **	<0.1
GP-2A		8/28/1997						0					0.2 <0.1	<0.1
GP-3A		10/17/1997						0			***		<0.1	<0.1
GP-4		8/28/1997	310 **	150 **	1,100 **	4,300 **	730 **	0	***	2,700 **	1,200 **	3,900 **	88 **	720
GP-4A		10/20/1997	27	20	170	550	2	1,010		180	61	241	2.5	
GP-5		8/28/1997	53	<10	20	12	<10	131		26	20	46	2.7	
GP-6		8/28/1997	<1 **	<1 **	<1 **	<1 **	<1 **	0		<1 **	<1 **	<1 **	<0.1 **	0.9
GP-6A		10/17/1997	<1	<1	2	8	<1	15		4	1	5	<0.1	0.15
GP-7		8/28/1997						0					<0.1	
GP-8		8/28/1997	790 **	190 **	74 **	400 **	210 **	0		79 **	40 **	119 **	8	
GP-8A		10/20/1997	5,500	690	650	3,000	<50	11,300		1,200	260	1,460	28	130
GP-9		8/28/1997	18 **	<1 **	6 **	7 **	23 **	0		7 **	6 **	13 **	1.5 **	1.9
GP-9A MW-101	_	10/20/1997 7/25/2003	680	<10 <0.14	53	<10 <0.24	<b>65</b> 0.42 Q	849		35	16	51	28	2.4
10100-101	DUP	7/25/2003	0.28 Q	<0.14	0.12 Q <0.11	<0.24	0.42 Q 0.41 Q			<0.13 <0.13	<0.14	<0.27		
		10/28/2003	<0.45	<0.61	<0.47	<0.99	<0.6			<0.51	<0.72	<1.23		
		2/13/2004	<0.45	<0.61	<0.47	<0.99	<0.6			<0.51	<0.72	<1.23		
		7/8/2004	0.73 Q	<0.5	<0.42	<0.92	<0.45			<0.53	<0.46	<0.99		
	DUP	10/6/2004	0.72 Q	<0.5	<0.42	<0.92	<0.45			<0.53	<0.46	<0.99		
	DOP	10/6/2004 10/28/2005	<0.45	<0.5 <0.51	<0.42 <0.54	<0.92 <1.1	<0.45			<0.53 <0.46	<0.46	<0.99		
		10/19/2006	0.61	<0.11	<0.22	<0.39	<0.23			<0.46	<0.19	<0.44		
		11/1/2007	<0.25	<0.11	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
		11/18/2008	<0.25	<0.25	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
	DUP	11/18/2008	<0.25	<0.25	<0.22	<0.39	0.25 J			<0.25	<0.19	<0.44		
		12/3/2009 11/9/2010	<0.39	<0.42	<0.41	<1.25 <1.25	<0.38			<0.43	<0.4	<0.83		
		11/3/2010	2.6	<0.42	<0.41	<1.25	<0.38			<0.43	<0.4	<0.83		
		11/8/2012	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
		11/5/2013	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
NAME 400		11/5/2014	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
MW-102		7/25/2003 10/28/2003	580 47	<17 0.93 Q	77	<31 2.8 Q	<15 <0.6			<15 2.2	<20 1.1 Q	<35 3.3 Q		
		2/23/2004	550	<6.1	210	100	<6			87	17 Q	104 Q		
	DUP	2/23/2004	540	<6.1	200	100	<6			80	150	230		
		7/8/2004	15	<1	13	<1.8	<0.89			3.9	<0.91	<4.81		
		10/6/2004	53	1.1	51	11	<0.45			20	2.6	22.6		
		10/28/2005	16 56	3.3 0.22	6.7 8	4.2 Q 2	<0.87			3.9	<0.95	<4.85		
	DUP	10/19/2006	57	25	89	1.8	<1.3 <1.6	_		0.75	0.48	1.23 <0.96		
	201	11/1/2007	14	<0.11	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
	DUP	11/1/2007	95	<0.11	1	1.4	<0.23			<0.25	<0.19	<0.44		
		11/18/2008				Well was d								
		12/3/2009	79.8	<0.42	19	< 1.88 J	<0.38			<0.43	0.42 J	<0.85 J		
		11/9/2010 11/29/2011	<b>10.4</b> 0.42 J	<0.42	<0.41	<1.25 <1.25	<0.38	-		<0.43	<0.4	<0.83		
		11/8/2012	<0.5	<0.42	<0.41	<1.25	<1			<0.43	<0.4	<0.83		
		11/5/2013	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
		11/5/2014	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		

## GROUNDWATER ANALYTICAL TABLE

Groundwater Analytical Results - PVOCs		Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Total Petroleum Hydrocarbons	Oil & Grease	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Trimethylbenzene	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	
NR 140 Enforc	omant Stane	lard	(μg/L) 5	(µg/L) 1,000	(μg/L) 700	(μg/L) 10,000	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L) 480	mg/L	mg/L
VR 140 Prever			0.5	200	140	1,000	12					96		
Sample	Sample	Sample	4.5	200	270	2,000						30		
Location	Type	Date												
MW-103	1.750	7/25/2003	75 Q	<67	1,400	1,700	<61			2	530	532		
14144-102		10/28/2003	190	<61	1,300	<	<60			1,500	380	1,880		
	DUP	10/28/2003	230 Q	<120	1,400	1,700	<120			1,700	4,500	6,200		
		2/13/2004	290	<30	1,600	2,400	<30			2,000	550	2,550		
		7/8/2004	200	<50	1,400	2,000	<45			1,800	530	2,330		
	DUP	7/8/2004	190	<50	100	2,000	<45			1,800	530	2,330		
		10/6/2004	93	<25	920	1,100	<22			1,400	360	1,760		
		10/28/2005	310	84 Q	1,500	2,420	<22			2	560	562		
		10/19/2006	220	20	1,100	1,800	<4.2			1,300	360	1,660		
		11/1/2007	220	16	1,200	2,000	<4.6		****	1.5	390	392		
		11/18/2008	220	18	1,000	1,800	<4.6			1,300	310	1,610		
	DUP	12/3/2009	239	15.6	1,080	1,724	3.9 J			1,190	292	1,482		
	DOP	12/3/2009 11/9/2010	140	13.7	940 739	1,428 906.4	2.5 2.6 J			954 762	223 149	1,177		
	DUP	11/9/2010	127	10.3	644	770.3	2.1 J			602	121	911 723		
	501	11/29/2011	118	9.1	667	741.3	3.8 J			816	150	966		
	DUP	11/29/2011	121	9.3	702	779.4	3.6 J			858	157	1,015		
	'	11/8/2012	67	4.4	600	380	<5			630	100	730		
	DUP	11/8/2012	72	5	620	410	<5			680	100	780		
	1	11/5/2013	62	4	540	330	<2			640	80	720		
	DUP	11/5/2013	63	4.3	530	350	<2			630	89	719		
	1 1	11/5/2014	78	4.5	720	320	<2			620	60	680		
	DUP	11/5/2014	73	4.6	730	340	<2			590	57	647		
MW-104		7/25/2003	<0.29	<0.34	<0.26	<0.62	<0.31			<0.31	<0.39	<0.7		
		10/28/2003	<0.45	<0.61	<0.47	<0.99	<0.6			<0.51	<0.72	<1.23		
	DUP	2/13/2004 2/13/2004	<0.45 <0.45	<0.61 <0.61	<0.47 <47	<0.99 <0.99	<0.6			<0.51	<0.72	<1.23		***
	DOP	7/8/2004	<0.45	<0.5	<0.42	<0.99	<0.6			<0.51	<0.72 <0.46	<1.23 <0.92		
	1	10/6/2004	<0.45	<0.5	<0.42	<0.92	<0.45			<0.53	<0.46	<0.92		
	1 1	10/28/2005	<0.49	<0.51	<0.54	<1.1	<0.44			<0.46	<0.47	<0.93		
	1 1	10/19/2006	<0.25	<0.11	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
		11/1/2007	<0.25	<0.11	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
		11/18/2008	<0.25	<0.25	<0.22	<0.39	<0.23			<0.25	<0.19	<0.44		
	1 1	12/3/2009	<0.39	<0.42	<0.41	<1.25	<0.38			<0.43	<0.4	<0.83	***	
		11/9/2010	<0.39	<0.42	<0.41	<1.25	<0.38			<0.43	<0.4	<0.83		
		11/29/2011	<0.39	<0.42	<0.41	<1.25	<0.38			<0.43	<0.4	<0.83		
		11/8/2012	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
		11/5/2013	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
MM/ 10E	$\vdash$	11/5/2014 7/8/2004	<0.5 <b>17</b>	<0.5	<0.5 1.9	<1 7.5	<0.18			<1 0.2 Q	<1	<2		
MW-105		10/6/2004	89	<2.5	<2.1	<4.6	<2.2			<2.7	0.8 <2.3	1.0 Q <5		
	1	10/28/2005	2	<0.51	2.7	<1.1	<0.44			1.5 Q	<0.47	1.97 Q		
		10/19/2006	5.5	0.26	1.1	0.45	<0.23			0.26	<0.19	<0.45		
		11/1/2007	4.4	0.31 J	0.35 J	<0.39	<0.23			0.41 J	<0.19	0.6 J		
		11/18/2008	45	0.28 J	14	4	<0.23			3.8	0.75	4.55		
		12/3/2009	12	<0.42	0.54 J	<1.25	<0.38			<0.43	<0.4	<0.83		
		11/9/2010	4.5	<0.42	<0.41	<1.25	<0.38			<0.43	<0.4	<0.83	****	
		11/29/2011	6.7	<0.42	2.7	<1.25	<0.38			0.66 J	<0.4	1.06 J		
		11/8/2012	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2	***	
		11/5/2013	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		***
		11/5/2014	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		

#### **GROUNDWATER ANALYTICAL TABLE**

Groundwater Analytical Results - PVOCs		(元) Benzene	7年) (7) Toluene	र्जित (7) Ethylbenzene	र्कि Total Xylenes रि	所(所)	সি Total Petroleum Hydrocarbons	자 (기 Oil & Grease	ন্দ্র 1,2,4-Trimethylbenzene	五 五 1,3,5-Trimethylbenzene	নি তি Total Trimethylbenzene	ತ್ತ ೧೯೮೨ (GRO)	Diesel Range Organics (DRO)	
NR 140 Enforce	ement Stand	dard	5	5 1,000	700	10,000	60	(PB) -/	(M6/L)	(µ6/ L)	(μ6/ ε/	480	1118/2	mg/L
NR 140 Preven			0.5	200	140	1,000	12					96		
Sample Location	Sample Type	Sample Date												
MW-106	Ī	7/8/2004	<0.18	<0.21	<0.18	<0.31	1.8			<0.18	<0.18	<0.36		
		10/6/2004	<0.45	<0.5	<0.42	<0.92	2.3			<0.53	<0.46	<0.99		
		10/28/2005	< 0.49	<0.51	<0.54	<1.1	4.3			<0.46	<0.47	<0.93		
		10/19/2006	<0.25	<0.11	<0.22	<0.39	0.88			<0.25	<0.19	<0.44		
		11/1/2007	<0.25	<0.11	<0.22	<0.39	1.1			<0.25	<0.19	<0.44		
		11/18/2008	<0.25	<0.25	<0.22	<0.39	1.4			<0.25	<0.19	<0.44		
	1	12/3/2009	<0.39	<0.42	<0.41	<1.25	1.1			<0.43	<0.4	<0.83		
		11/9/2010	<0.39	<0.42	<0.41	<1.25	1.1			<0.43	<0.4	<0.83		
		11/29/2011	<0.39	<0.42	<0.41	<1.25	0.99 J			<0.43	<0.4	<0.83		
	1	11/8/2012	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
		11/5/2013	<0.5	<0.5	<0.5	<1	1.1			<1	<1	<2		
		11/5/2014	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
TW-107		7/8/2004	<0.18	0.26 Q	<0.18	<0.31	1.4			<0.18	<0.18	<0.36		
		10/6/2004	<0.45	<0.5	<0.42	<0.92	<0.45			<0.53	<0.46	<0.99		
		10/28/2005	<0.49	<0.51	<0.54	<1.1	<0.44			<0.46	<0.47	<0.93		
	DUP	10/28/2005	<0.49	<0.51	<0.54	<1.1	<0.44			<0.46	<0.47	<0.93		
		10/19/2006	<0.25	0.19	<0.22	<0.39	0.8			<0.25	<0.19	<0.44		
		11/1/2007	<0.25	<0.11	<0.22	<0.39	0.67 J			<0.25	<0.19	<0.44		
		11/18/2008	<0.25	<0.25	<0.22	<0.39	0.81			<0.25	<0.19	<0.44		
		12/3/2009	<0.39	<0.42	<0.41	<1.25	1.3		***	<0.43	<0.4	<0.83		***
		11/9/2010	<0.39	<0.42	<0.41	<1.25	1.1			<0.43	<0.4	<0.83		
		11/29/2011	<0.39	<0.42	<0.41	<1.25	1 J			<0.43	<0.4	<0.83		***
		11/8/2012	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		
		11/5/2013	<0.5	1.1	<0.5	<1	<1			<1	<1	<2		
		11/5/2014	<0.5	<0.5	<0.5	<1	<1			<1	<1	<2		

- NOTES: 1. μg/L = Parts per billion 2. **Bold** = Exceeds NR 140 ES
- 3. Italics = Exceeds NR 140 PAL
- 4. <# = not detected above the laboratory method detection limit
- 5. Q = Analyte detected between the limit of detection and the limit of quantitation
- 6. DUP = Duplicate
- 7. J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- 8. \*\* = The analytical laboratory exceeded the hold time for analysis. The concentration indicated represents a minimum concentration.
- 9. --- = Not analyzed

#### TABLE A.2

#### SOIL ANALYTICAL RESULTS TABLE

Former PDVMR Milwaukee Terminal 9521 North 107th Street Milwaukee, Wisconsin

Soil Analytical Results - PVOCs, GRO & DRO					euseus Beuseus (ug/kg)	(ng/kg)	(gg/g) Ethylbenzene	(ak) Total Xylenes (%)	(ug/kg)	Total Petroleum Hydrocarbons	តិ 1,2,4-Trimethylbenzene (ភ្	জ মুন্ধু 1,3,5-Trimethylbenzene	Ož S (mg/kg)	(mg/Kg)
NR 720 Gen	eric Residual C	contaminant Lev	vel (RCL)		5,5	1,500	2,900	4,100	NA		NA	NA	100	100
NR 746 Tabl	le 1 Values				8,500	38,000	4,600	42,000	NA		83,000	11,000	NA	NA
NR 746 Tabl					1,100	NA	NA	NA	NA		NA	NA	NA	NA
Industrial Dir	rect Contact (D)	C) Level			7,410	818,000	37,000	258,000	293,000		293,000	61,200	NA	NA
Non-Industria	al RCL				1,490	818,000	7,470	258,000	594,000		89,800	182 000		
Soil to Groun	ndwater Level				5	1,107	1,570	3 940	270		1,380	1,380	NA	NA
Sample Location	Sample Date	Split Spoon / Soil Type	Depth to Water (feet)	Sample Depth (feet)										
		SS-1		2-4	<500	<500		<500	***	100,000				
B-1	3/22/1988	SS-4		8-10	<500	<500		<500	***	120,000				***
		SS-6		14	<500	<500		<500		190,000				***
B-2	3/22/1988	SS-2		2-4	<500	<500		<500		140,000				
		SS-6		10-12	<500	<500		<500		120,00				
B-3	3/23/1988	SS-4		8-10	<500	<500		<500		650,000	***			
B-4	3/23/1988	SS-4		6-8	<500	<500		<500		90,000	***			
B-5	3/23/1988	SS-2		2-4	<500	<500		<500		120,000				
B-6	3/24/1988	SS-5		8-10	<500	<500		<500	***	80,000				
B-7	3/24/1988	SS-2		2-4	<500	<500		<500		170,000				
B-8	3/24/1988	SS-2		2-4	3,900	<500		<500		210,000	***			
GP-1	8/28/1997	clay	3.9 - 4	2-4			***						<12	<12
GP-2	8/28/1997	clay	4	2-4				***				**-	<12	<12
GP-3	8/28/1997	clay	4	2-4									<12*	310
		clay	4	8-10									<12	<12
GP-3A	10/15/1997	clay	4	2-4	<11	<11	<11	<11	<11		43	<11	13	74
GP-4	8/28/1997	clay	4	2-4	<32	<32	<32	<32	<32		36	<32	<13	<13
GP-5	8/28/1997	clay	4.9 - 5	1-3	31	<27	<27	<27	<27	-	27	<27	<11	1,300
		clay	4.9 - 5	7-9	490	90	520	2,200	370		240	190	180	780
GP-6	8/28/1997	clay	5	2-4				***				244	<12	<12
GP-7	8/28/1997	clay	5	2-4									<11	<11
	-,,,	clay	5	10-12									<12	<12
GP-8	8/28/1997	clay	5	3-5	<240	2,200	13,000	67,000	<240		28,000	10,000	500*	470
		clay	5	7-9	560	<29	410	180	<29		76	110	<12	<12
GP-8A	10/15/1997	clay	5	3-5	<33	-20							2,300	
	GP-9 8/28/1997 clay 5 2-4					<33	<33	<33 0	<33		<33	40	<13	<13
	Number of Individual Exceedences (DC)					0.0498	0.0498	0.0498	0.0498		0	0	0	0
	azard Index (DC)*				0.0498						0.0498	0.0498	0.0498	0.0498
Cumulative Cancer Risk (DC) **					4.3 E-07	4.3 E-07	4.3 E-07	4.3 E-07	4.3 E-07		4.3 E-07	4.3 E-07	4.3 E-07	4.3 E-07

## NOTES:

- 1. ug/kg = micrograms per kilogram
  2. ug/kg = micrograms per kilogram
  3. Bold = Exceeds NR 720 Generic Residual Contaminant Levels
  4. Italicized: Exceeds soil to groundwater level
  5. NA = not applicable

- 6. < or ND = Not detected above the laboratory method detection limit.

- 7. --- = Not analyzed
  8. \* = The analytical laboratory exceeded the hold time for this sample. The results are shown at least a minimum concentration of GRO.
  9. \*\*Cumulative Hazard Index and Cumulative Cancer Risk were calculated utilizing a sum of the highest concentrations from all soil borings as provided in the RCL spreadsheet

# WATER LEVEL ELEVATIONS

Well ID	Top of Casing (NGVD)	Sample Date	Depth to Water (feet)	Groundwater Elevation	
MW-101	727.54	7/25/2003	13.50	714.04	
		10/28/2003	8.53	719.01	
		2/13/2004	8.08	719.46	
	[	2/23/2004	6.65	720.89	
		7/8/2004	7.39	720.15	
		10/6/2004	9.05	718.49	
		10/28/2005	8.68	718.86	
		10/19/2006	6.19	721.35	
		11/21/2006	7.93	719.61	
		11/1/2007	8.32	719.22	
		11/18/2008	8.36	719.18	
		12/3/2009	7.75	719.79	
		11/9/2010	8.57	718.97	
		11/29/2011	7.34	720.20	
		11/8/2012	8.70	718.84	
		11/5/2013	8.55	718.99	
		11/5/2014	8.68	718.86	
MW-102	729.18	7/25/2003	13.31	715.87	
		10/28/2003	5.66	723.52	
		2/13/2004	Well buried und	der snow mound	
		2/23/2004	5.69	723.49	
	[	7/8/2004	6.37	722.81	
		10/6/2004	6.89	722.29	
		10/28/2005	6.78	722.40	
		10/19/2006	3.04	723.00	
		11/21/2006	3.03	723.01	
		11/1/2007	2.97	723.07	
		11/18/2008	Damaged-N	ot measured	
		12/3/2009	3.58	722.46	
		11/9/2010	3.54	722.50	
		11/29/2011	2.06	723.98	
		11/8/2012	2.10	727.08	
		11/5/2013	3.02	726.16	
		11/5/2014	2.47	726.71	

# **WATER LEVEL ELEVATIONS**

Well ID	Top of Casing (NGVD)	Sample Date	Depth to Water (feet)	Groundwater Elevation
MW-103	730.83	7/25/2003	14.45	716.38
		10/28/2003	5.84	724.99
		2/13/2004	6.78	724.05
		2/23/2004	6.02	724.81
		7/8/2004	5.22	725.61
		10/6/2004	7.13	723.70
		10/28/2005	6.41	724.42
		10/19/2006	5.14	725.69
		11/21/2006	5.63	725.20
		11/1/2007	6.00	724.83
		11/18/2008	6.15	724.68
		12/3/2009	5.43	725.40
		11/9/2010	6.21	724.62
		11/29/2011	5.60	725.23
		11/8/2012	6.04	724.79
		11/5/2013	5.79	725.04
		11/5/2014	5.92	724.91
MW-104	739.41	7/25/2003	14.15	725.26
		10/28/2003	3.73	735.68
		2/13/2004	3.59	735.82
		2/23/2004	4.06	735.35
		7/8/2004	2.38	737.03
		10/6/2004	4.21	735.20
		10/28/2005	4.69	734.72
		10/19/2006	3.71	735.70
		11/21/2006	3.94	735.47
		11/1/2007	3.83	735.58
		11/18/2008	4.51	734.90
		12/3/2009	3.99	735.42
		11/9/2010	4.47	734.94
		11/29/2011	4.52	734.89
		11/8/2012	5.05	734.36
		11/5/2013	5.13	734.28
		11/5/2014	5.33	734.08

# **WATER LEVEL ELEVATIONS**

Well ID	Top of Casing (NGVD)	Sample Date	Depth to Water (feet)	Groundwater Elevation			
MW-105	729.02	2/23/2004	Well not constructed				
		7/8/2004	8.22	720.80			
		10/6/2004	4.29	724.73			
		10/28/2005	4.23	724.79			
		10/19/2006	3.65	725.37			
		11/21/2006	3.57	725.45			
		11/1/2007	3.81	725.21			
		11/18/2008	5.13	723.89			
		12/3/2009	3.45	725.57			
		11/9/2010	3.78	725.24			
		11/29/2011	3.71	725.31			
		11/8/2012	3.81	725.21			
		11/5/2013	3.83	725.19			
		11/5/2014	4.12	724.90			
MW-106	725.60	2/23/2004 Well not co		onstructed			
		7/8/2004	4.61	720.99			
		10/6/2004	5.91	719.69			
		10/28/2005	5.47	720.13			
		10/19/2006	3.68	721.92			
		11/21/2006	4.78	720.82			
		11/1/2007	5.19	720.41			
		11/18/2008	5.03	720.57			
		12/3/2009	4.76	720.84			
		11/9/2010	5.57	720.03			
		11/29/2011	4.83	720.77			
		11/8/2012	6.13	719.47			
		11/5/2013	6.78	718.82			
		11/5/2014	7.16	718.44			

# **WATER LEVEL ELEVATIONS**

Former PDVMR Milwaukee Terminal 9521 North 107th Street Milwaukee, Wisconsin

Well ID	Top of Casing (NGVD)	Sample Date	Depth to Water (feet)	Groundwater Elevation
TW-107	726.63	2/23/2004	Well not o	constructed
		7/8/2004	2.86	723.77
		10/6/2004	4.82	721.81
		10/28/2005	3.71	722.92
		10/19/2006	2.62	724.01
		11/21/2006	3.06	723.57
		11/1/2007	3.19	723.44
		11/18/2008	3.64	722.99
		12/3/2009	2.93	723.70
		11/9/2010	3.40	723.23
		11/29/2011	2.90	723.73
		11/8/2012	3.15	723.48
		11/5/2013	3.18	723.45
		11/5/2014	3.32	723.31

# NOTES:

1. NGVD = Nation Geodetic Vertical Datum

# ATTACHMENT B – MAPS, FIGURES AND PHOTOS

## **B.1 LOCATION MAPS**

- B.1.a Site Location Map
- B.1.b.1 Site Map
- B.1.b.2 Local Area Map
- B.1.c RR Site Maps

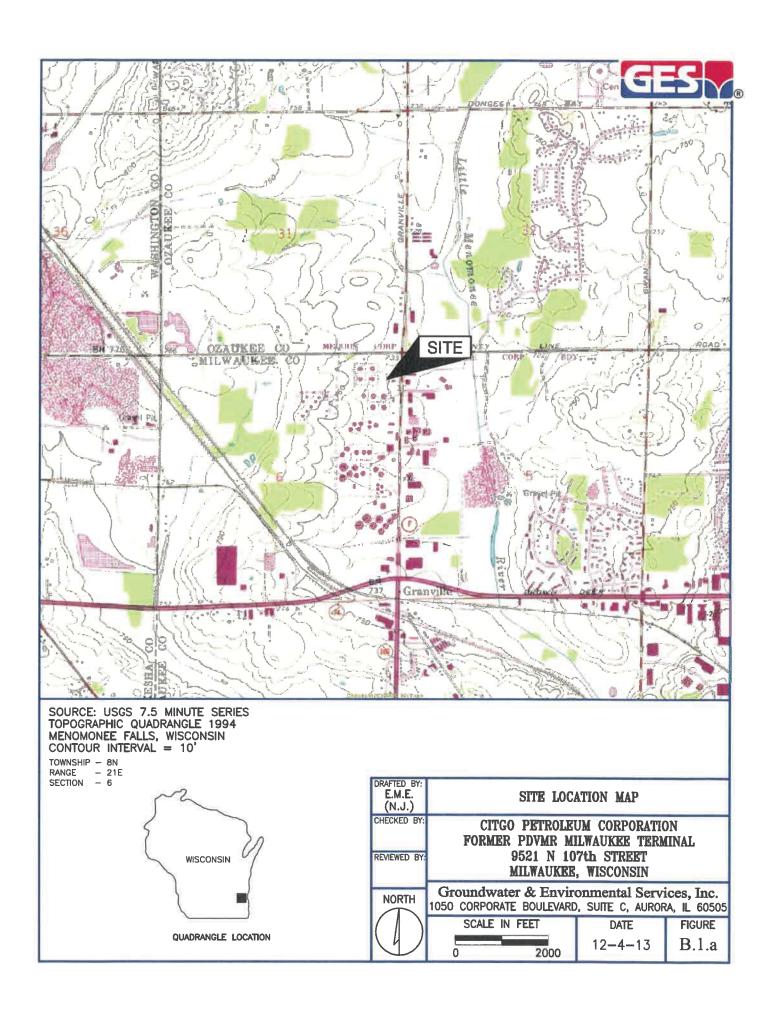
## **B.2 SOIL FIGURES**

- B.2.a Soil Analytical Data Map
- B.2.b Soil Residual Contamination Map

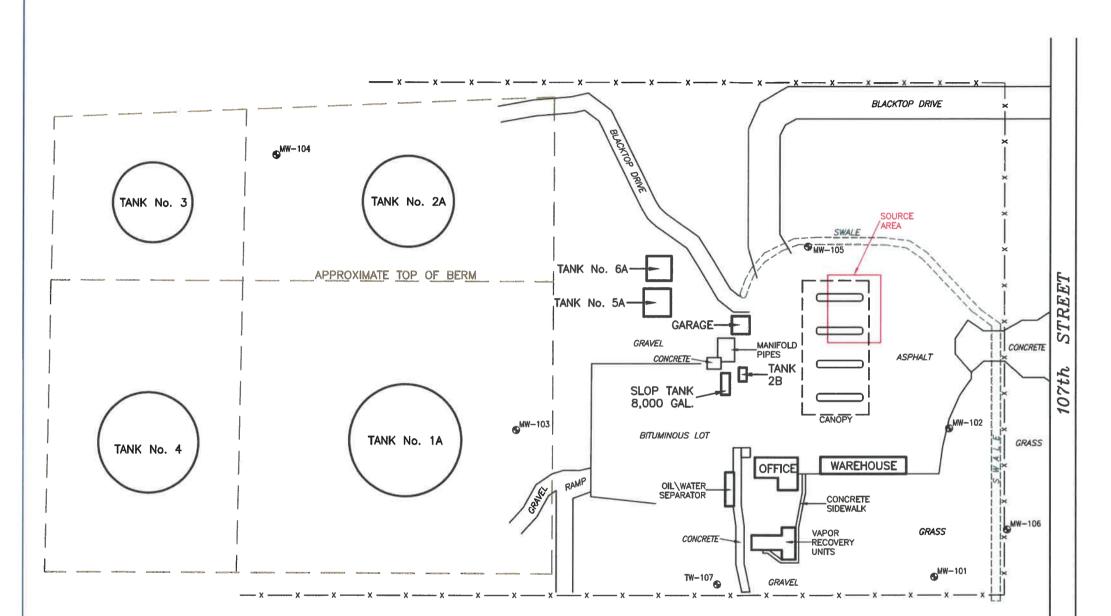
# **B.3 GROUNDWATER FIGURES**

- B.3.a.1 Cross Section Location Map
- B.3.a.2 Cross Section A-A'
- B.3.a.3 Cross Section B-B'
- B.3.b Groundwater Residual Contamination Map
- B.3.c Groundwater Elevation Contour Map
- B.3.d Monitoring Well Abandonment Map
- **B.4** VAPOR MAPS AND OTHER MEDIA No attachment because a vapor assessment was not necessary for the Subject Property

### **B.5** STRUCTURAL IMPEDIMENT PHOTOS







FORMER EQUILON PROPERTY

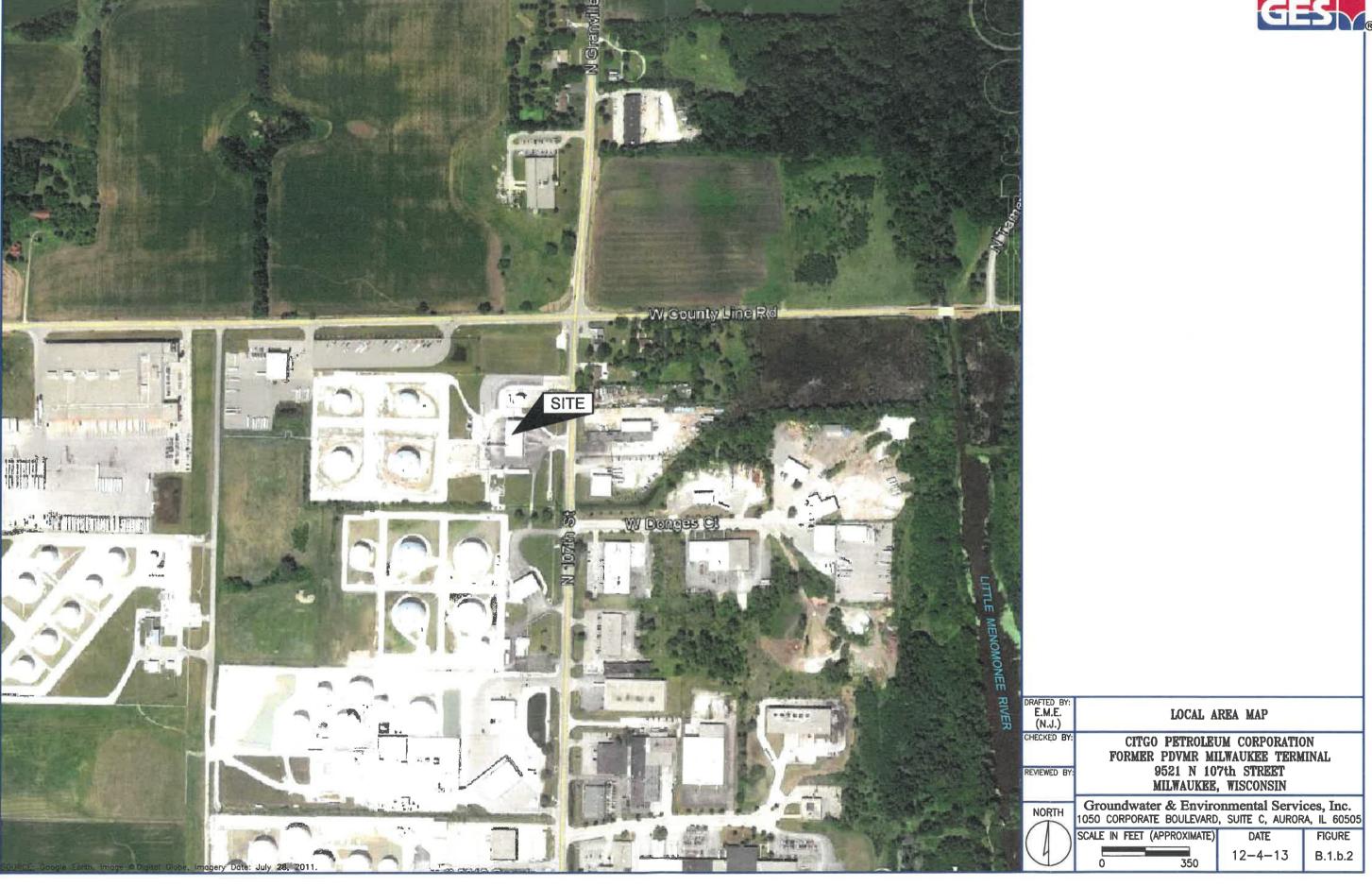
**LEGEND** 

MONITORING WELL

DRAFTED BY: W.G.S.	SITE	MAP	
CHECKED BY:	CITGO PETROLEU FORMER PDVMR MI	LWAUKEE TERM	
REVIEWED BY:		7th STREET , WISCONSIN	
NORTH	Groundwater & Environ 1050 CORPORATE BOULEVARD		
( )	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE
4	0 100	5-26-17	B.1.b.1

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.











### Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
- Soil Contamination
- Groundwater and Soil Contamination
- Contamination From Another Property
- Oryclean Environmental Response Fund (DERF)
- Green Space Grant (2004-2009)
- Ready for Reuse
- Site Assessment Grant (2001-2009)
- State Funded Response
- Sustainable Urban Development Zone (§
- General Liability Clarification Letters
- Superfund NPL
- Voluntary Party Liability Exemption Rivers and Streams
- Open Water

0.1 0 0.07 0.1 Miles

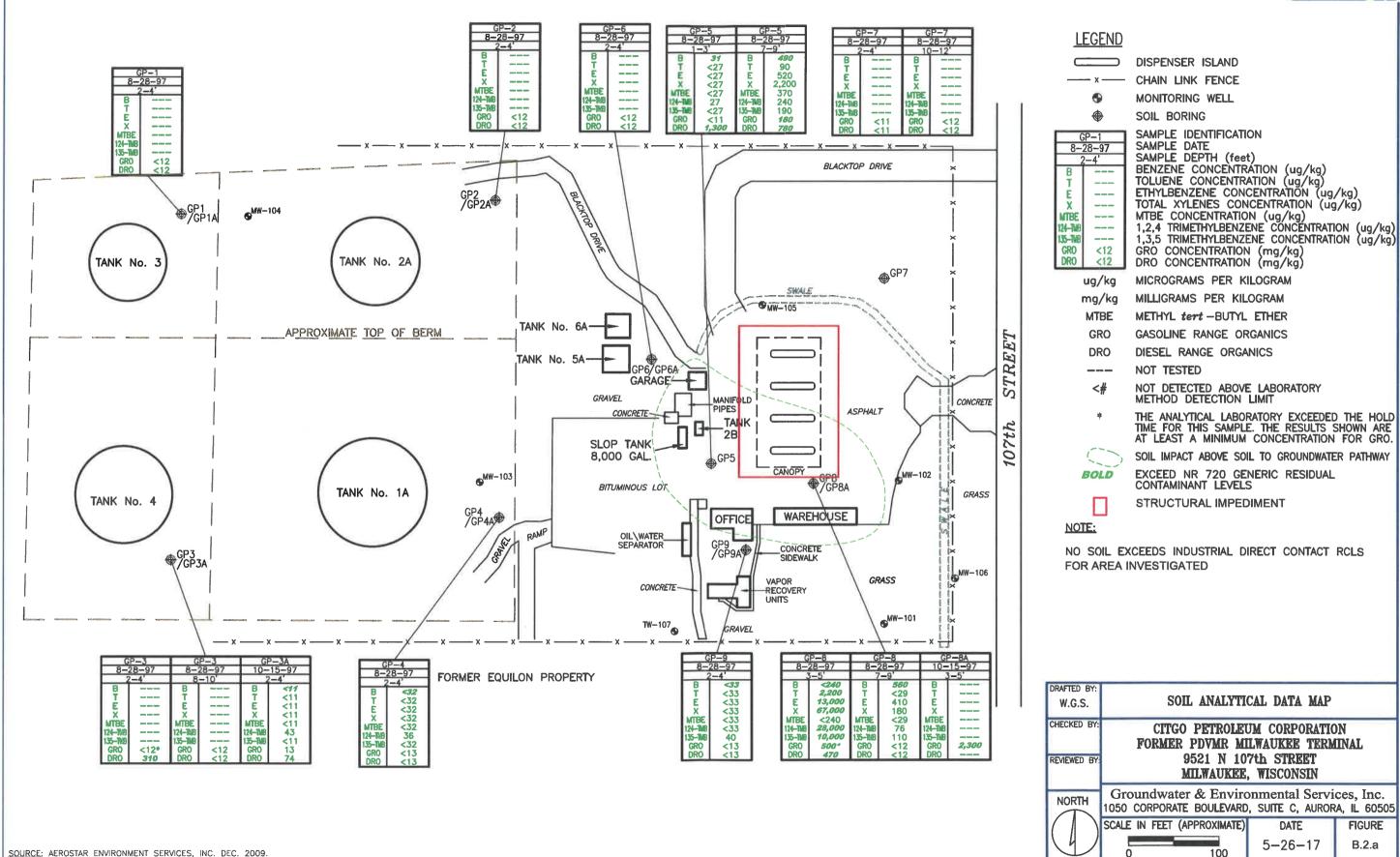
NAD\_1983\_HARN\_Wisconsin\_TM
© Latitude Geographics Group Ltd.

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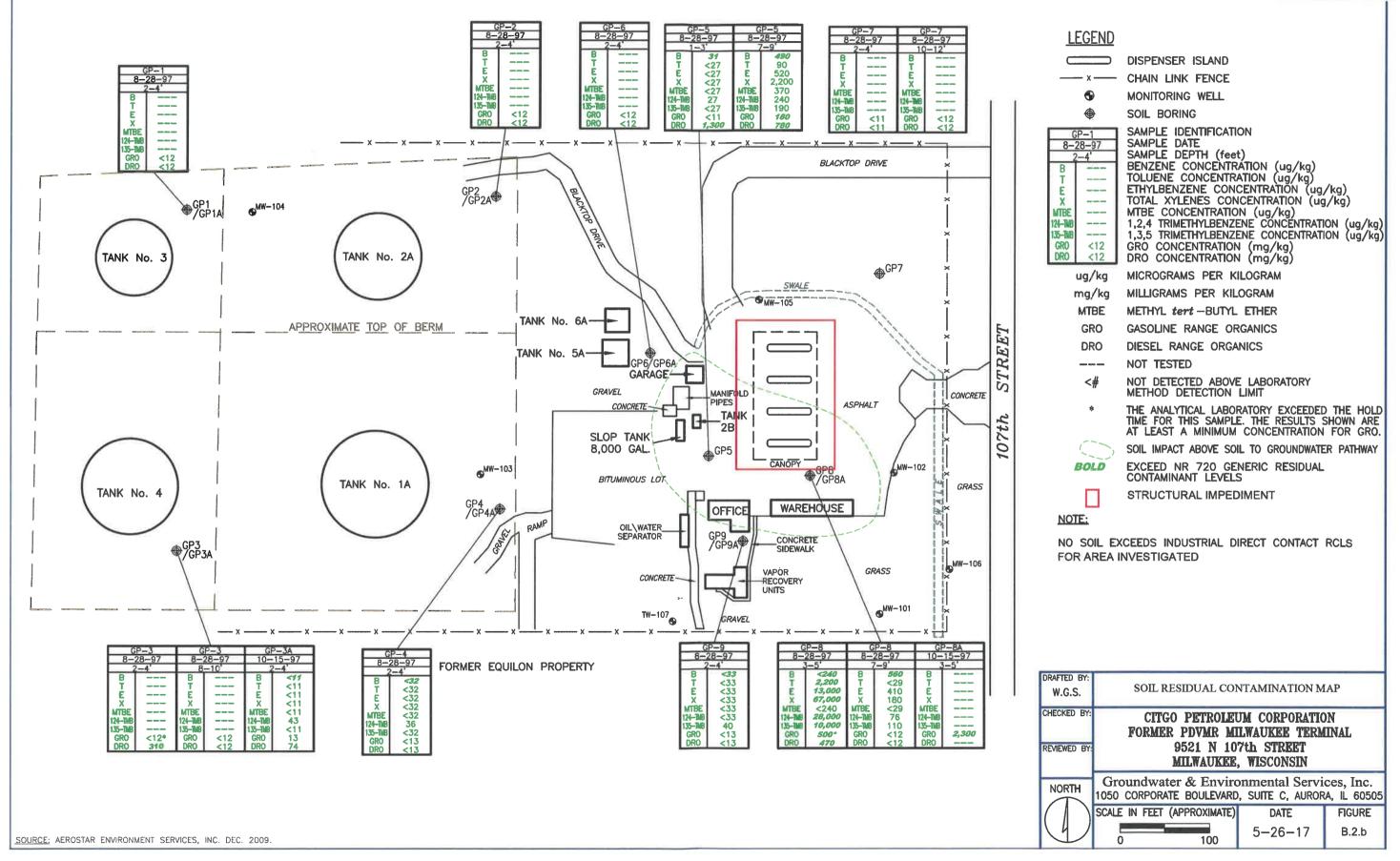
Note: Not all sites are mapped.

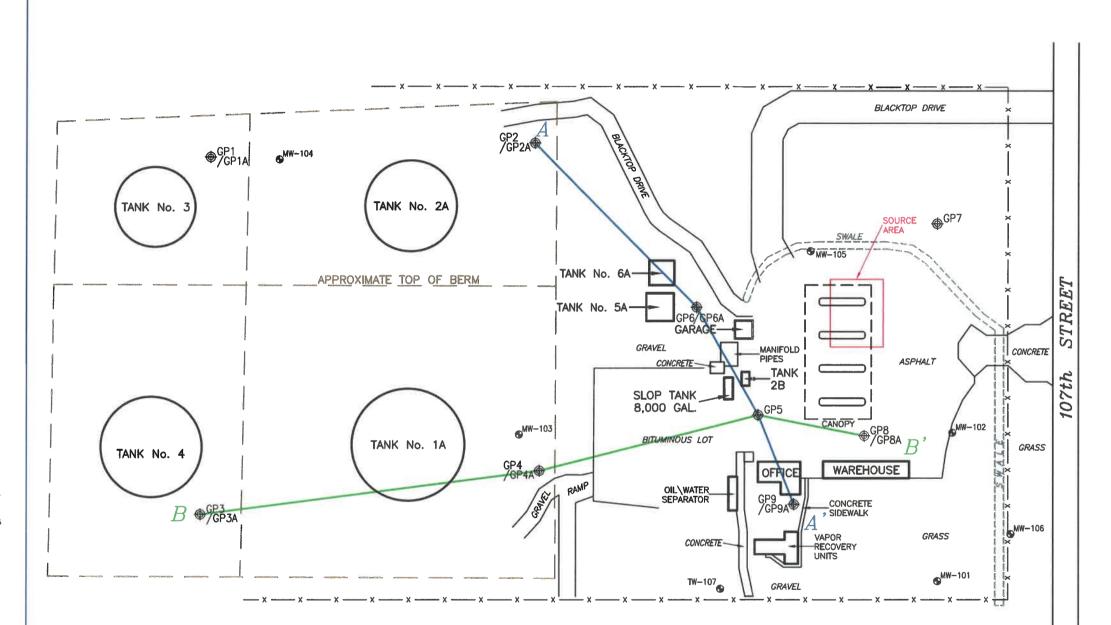
Figure B.1.c











FORMER EQUILON PROPERTY

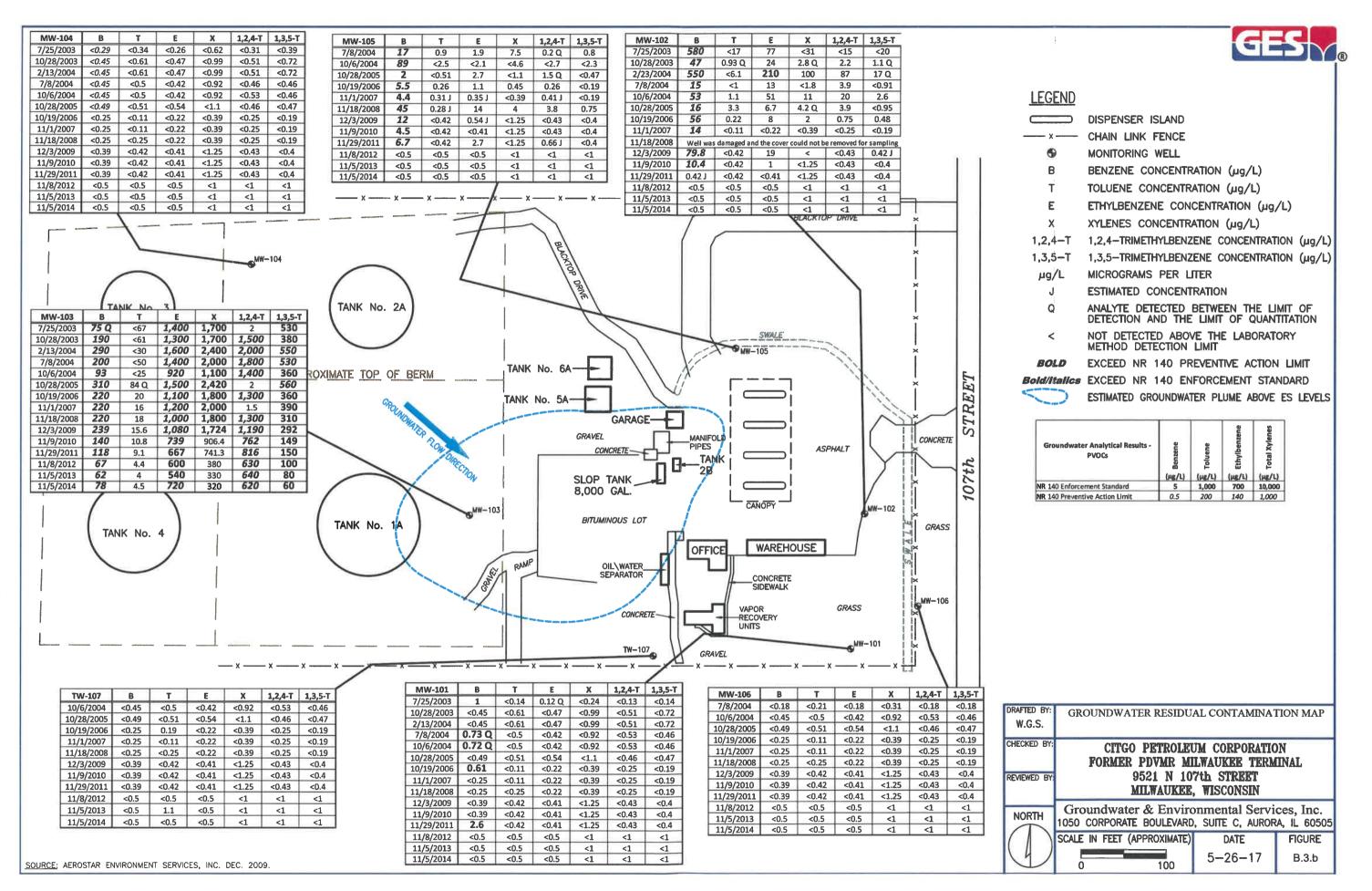
LEGEND

DISPENSER ISLAND
CHAIN LINK FENCE

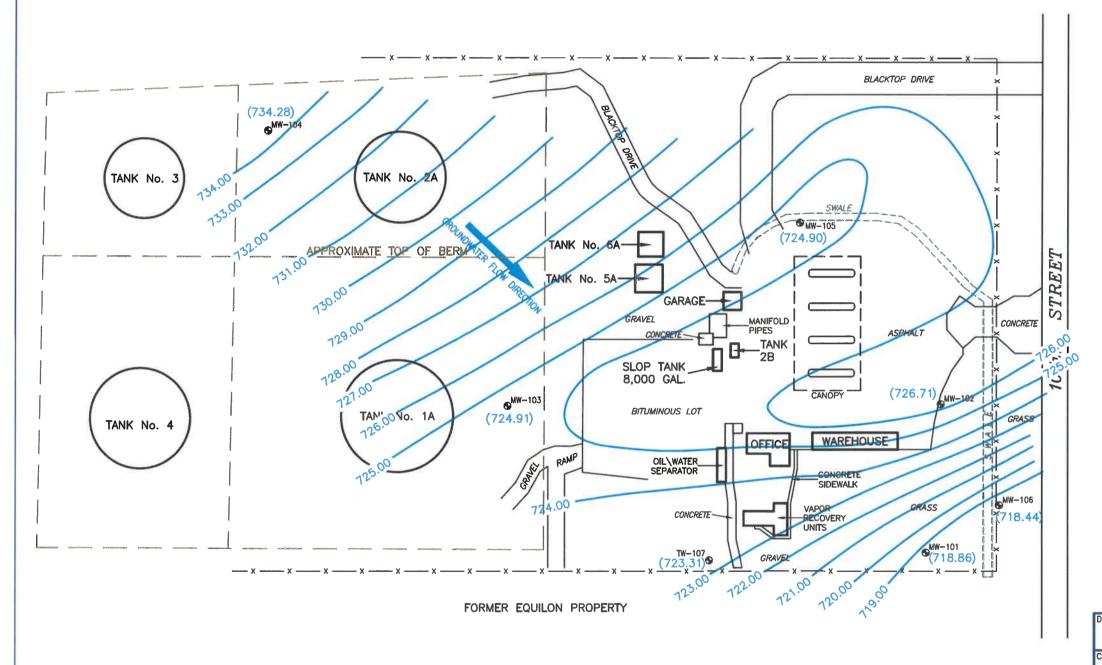
MONITORING WELL

SOIL BORING

DRAFTED BY CROSS SECTION LOCATION MAP W.G.S. CHECKED BY: CITGO PETROLEUM CORPORATION FORMER PDVMR MILWAUKEE TERMINAL 9521 N 107th STREET REVIEWED BY: MILWAUKEE, WISCONSIN Groundwater & Environmental Services, Inc. NORTH 1050 CORPORATE BOULEVARD, SUITE C, AURORA, IL 60505 SCALE IN FEET (APPROXIMATE) DATE FIGURE 5-26-17 B.3.a.1







**LEGEND** 

DISPENSER ISLAND

CHAIN LINK FENCE

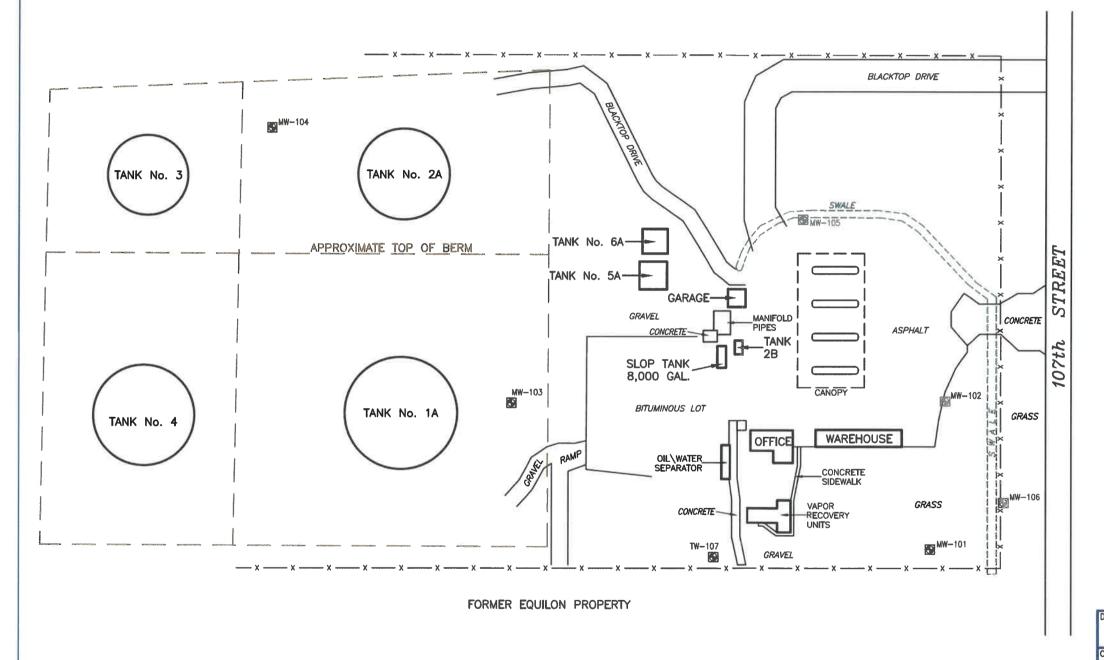
MONITORING WELL

(734.08) GROUNDWATER ELEVATION (feet)
GROUNDWATER CONTOUR (feet)

DRAFTED BY: W.A.W. (N.J.)		ATION CONTOU R 5, 2014	R MAP
CHECKED BY:	FORMER PDVMR MI 9521 N 10		
NORTH	Groundwater & Enviro	, SUITE C, AUROR	
(   )	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE
4	0 100	11-6-15	B.3.c

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.





LEGEND

MONITORING WELL TO BE ABANDONED

DRAFTED BY: W.A.W. (N.J.)	MONITORING WELL	ABANDONMENT	MAP
CHECKED BY:	FORMER PDVMR MI 9521 N 10		
NORTH	Groundwater & Environ 1050 CORPORATE BOULEVARD		
	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE
4	0 100	11-6-15	B.3.d

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.





**Photograph 1 – Structural Impediment (View Northwest)** 





Photograph 1 - Structural Impediment (View Northeast)

# ATTACHMENT C – DOCUMENTATION OF REMEDIAL ACTION

- C.1 SITE INVESTIGATION DOCUMENTATION A site investigation was provided to the WDNR in 1999. Annual groundwater sampling events have been completed at the Subject Property to evaluate natural attenuation. These reports have not been provided here because the groundwater elevations and analytical results have been provided in Table A.1 and Table A.6. Groundwater flow from these reports matches the groundwater flow illustrated on Figure B.3.c.
- **C.2 INVESTIGATIVE WASTE** Information has not been provided as the initial soil investigation was completed by Natural Resources Technology in 1998. No additional waste has been created since that investigation.
- C.3 DESCRIPTION OF METHODOLOGY Remedial activities for the Subject Property include natural attenuation. Groundwater concentrations show natural attenuation through the evaluation of the Mann-Kendall Statistic Test and verified with the Mann-Whitney U Test. Soil concentrations were compared to the WDNR RCL spreadsheet provided at <a href="http://dnr.wi.gov/topic/Brownfields/Professionals.html">http://dnr.wi.gov/topic/Brownfields/Professionals.html</a>.

### **Documentation Provided:**

- 1. Mann-Kendall Statistic Spreadsheets
- 2. Mann-Whitney U Test
- 3. WDNR RCL Spreadsheet
- **C.4 CONSTRUCTION DOCUMENTATION** No documentation has been provided because construction activities were not utilized to address the release for the Subject Property.
- **C.5 DECOMMISSIONING OF REMEDIAL SYSTEM** No documentation has been provided because a remedial system has not operated at the Subject Property.
- **C.6 OTHER** Nothing is provided here as the closure request is requested based on information provided in C.3.

### State of Wisconsin

## **Department of Natural Resources**

## Mann-Kendall Statistical Test Form 4400-215 (2/2001)

**Remediation and Redevelopment Program** 

Notice: I his form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name	Former PDVMR Milwaukee Te	erminal		BRRTS No. =	02-41-118373	Well Number =	MW-102
	Compound ->	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total TMB	MTBE
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event		(leave blank					
Number	(most recent last)	if no data)					if no data)
1	6-Oct-04	53.00		51.00	11.00		0.45
2	28-Oct-05	16.00	3.30	6.70	4.20		0.87
3	19-Oct-06	56.00	0.22	8.00	22.00	0.96	1.30
4	1-Nov-07	14.00	0.11	0.22	0.39		0.23
5	3-Dec-09	79.80	0.42	19.00	1.88		0.38
6	9-Nov-10	10.40	0.42	1.00	1.25	0.83	0.38
7	29-Nov-11	0.42	0.42	0.41	1.25		0.38
8	8-Nov-12	0.50	0.50	0.50	1.00		1.00
9	5-Nov-13	0.50	0.50	0.50	1.00	2.00	1.00
10	5-Nov-14		0.50	0.50	1.00		1.00
	Mann Kendail Statistic (S) =	-24.0	5.0	-18.0	-25.0		9.0
	Number of Rounds (n) =	10	10	10	10		10
	Average =	23.11	0.75		4.50	3.74	0.70
	Standard Deviation =	28.930	0.933		6.914		0.373
	Coefficient of Variation(CV)=	1.252	1.245	1.821	1.537	1.806	0.533
Error Check	, Blank if No Errors Detected						
Trend ≥ 80°	% Confidence Level	DECREASING		DECREASING			No Trend
	% Confidence Level	DECREASING	No Trend	DECREASING	DECREASING	No Trend	No Trend
	st, If No Trend Exists at		CV > 1			CV > 1	CV <= 1
80% Confi	dence Level	NA	NON-STABLE	NA	NA	NON-STABLE	STABLE
	Data Entry By =	BJ	Date =	15-May-15	Checked By =	BJ	

## State of Wisconsin

## **Department of Natural Resources**

## Mann-Kendall Statistical Test Form 4400-215 (2/2001)

**Remediation and Redevelopment Program** 

**Notice:** This form is the DNR supplied spreadsheet referenced in Appendices A of Comm 46 and NR 746, Wis. Adm. Code. It is provided to consultants as an optional tool for groundwater contaminant trend analysis to support site closure requests under s. Comm 46.07, Comm 46.08, NR 746.07, NR 746.08, Wis. Adm. Code. Use this form or a manual method when seeking case closure under those rules. Earlier versions of this form should not be used.

Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name :	Site Name : Former PDVMR Milwaukee Terminal BRRTS No. = 02-41-118373 Well Number = MW-103									
	Compound ->	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total TMB	MTBE			
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration			
Event	Sampling Date	(leave blank								
Number	(most recent last)	if no data)								
1	28-Oct-05	310.00	84.00		2,420.00		22.00			
2	19-Oct-06	220.00	20.00		1,800.00		4.20			
3	1-Nov-07	220.00	16.00	1,200.00	2,000.00	392.00	4.60			
4	18-Nov-08	220.00	18.00		1,800.00		4.60			
5	3-Dec-09	239.00	15.60		1,724.00	1,482.00	3.90			
6	9-Nov-10	140.00	10.80		906.40		2.60			
7	29-Nov-11	118.00	9.10	667.00	741.30	966.00	3.80			
8	8-Nov-12	67.00	4.40		380.00		5.00			
9	5-Nov-13	62.00	4.00	540.00	330.00	719.00	2.00			
10	5-Nov-14	78.00	4.50	720.00	320.00	647.00	2.00			
	Mann Kendall Statistic (S) =	-32.0	-39.0	-35.0	-42.0	-13.0	-25.0			
	Number of Rounds (n) =	10	10	10	10	10	10			
	Average =	167.40	18.64	914.60	1242.17	967.90	5.47			
	Standard Deviation =	85.722	23.711	309.566	789.198	456.651	5.908			
	Coefficient of Variation(CV)=	0.512	1.272	0.338	0.635	0.472	1.080			
Error Check	, Blank if No Errors Detected									
Trend ≥ 80°	% Confidence Level			DECREASING			DECREASING			
	% Confidence Level	DECREASING	DECREASING	DECREASING	DECREASING	No Trend	DECREASING			
	st, If No Trend Exists at									
80% Confid	dence Level	NA	NA NA	NA	NA	NA	NA			
1 - 1 - 1 - 1	Data Entry By =	BJ	Date =	15-May-15	Checked By =	BJ				

### State of Wisconsin

## **Department of Natural Resources**

## Mann-Kendall Statistical Test Form 4400-215 (2/2001)

Remediation and Redevelopment Program

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Instructions: Do not change formulas or other information in cells with a blue background, only cells with a yellow background are used for data entry. To use the spreadsheet, provide at least four rounds and not more than ten rounds of data that is not seasonally affected. Use consistent units. The spreadsheet contains several error checks, and a data entry error may cause "DATA ERR" or "DATE ERR" to be displayed. Dates that are not consecutive will show an error message and will not display the test results. The spreadsheet tests the data for both increasing and decreasing trends at both 80 percent and 90 percent confidence levels. If a declining trend is present at 80 percent but not at 90 percent, a site is still eligible for closure under Comm 46 and NR 746 provided that other conditions in those rules are met. If an increasing or decreasing trend is not present, an additional coefficient of variation test is used to test for stability, as proposed by Wiedemeier et al, 1999. For additional information, refer to the Interim Guidance on Natural Attenuation for Petroleum Releases, dated October 1999. Refer to the guidance for recommendations on data entry for non-detect values.

Site Name : Former PDVMR Milwaukee Terminal BRRTS No. = 02-41-118373 Well Number = MW-105									
	Compound ->	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total TMB	MTBE		
تتسيني		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration		
Event	Sampling Date	(leave blank							
Number	(most recent last)		if no data)						
1	28-Oct-05	2.00	0.51	2.70	1.10	1.97	0.44		
2	19-Oct-06	5.50	0.26	1.10	0.45	0.45	0.23		
3	1-Nov-07	4.40	0.31	0.35	0.39	0.60	0.23		
4	18-Nov-08		0.28	14.00	4.00	4.55	0.23		
5	3-Dec-09	12.00	0.42	0.54	1.25	0.83	0.38		
6	9-Nov-10	4.50	0.42	0.41	1.25	0.83	0.38		
7	29-Nov-11	6.70	0.42	2.70	1.25	1.06	0.38		
8	8-Nov-12	0.50	0.50	0.50	1.00	2.00	1.00		
9	5-Nov-13		0.50	0.50	1.00	2.00	1.00		
10	5-Nov-14		0.50	0.50	1.00	2.00	1.00		
	Mann Kendall Statistic (S) =		19.0	-11.0	-3.0	19.0	24.0		
	Number of Rounds (n) =	10	10	10	10	10	10		
	Average =	8.16	0.41	2.33	1.27	1.63	0.53		
	Standard Deviation =	13.427	0.097	4.201	1.008	1.207	0.335		
	Coefficient of Variation(CV)=	1.646	0.234	1.803	0.794	0.741	0.635		
1	, Blank if No Errors Detected								
	% Confidence Level	DECREASING		DECREASING	No Trend	INCREASING	INCREASING		
	% Confidence Level	No Trend	INCREASING	No Trend	No Trend	INCREASING	INCREASING		
	t, If No Trend Exists at				CV <= 1				
80% Confid	dence Level	NA	NA	NA	STABLE	NA	NA		
	Data Entry By =	BJ	Date =	15-May-15	Checked By =	BJ			

# **Mann-Whitney** $\mid U \leq 3 = contaminant concentration is declining$

MW-103						
Date	Benzene Concentration (ug/l)	Group	Rank	Ties	Rank sum of 1st year (WRS)	U Statistic
1-Nov-07	220	Q4	6.	5	26	0
18-Nov-08	220	Q4	6.	5		
3-Dec-09	239	Q4		3		
9-Nov-10	140	Q4		5		
29-Nov-11	118	Q4	4	4		
8-Nov-12	67	Q4		2		
5-Nov-13	62	Q4	•	1		
5-Nov-14	78	Q4		3		

# Contaminant concentration is declining

MW-105					
Data	Benzene Concentration	0	David Tire	Rank sum of	
Date	(ug/l)	Group	Rank Ties	1st year (WRS)	U Statistic
1-Nov-07	4.4	Q4	4	24	2
18-Nov-08	45	Q4	8		
3-Dec-09	12	Q4	7		
9-Nov-10	4.5	Q4	5		
29-Nov-11	6.7	Q4	6		
8-Nov-12	0.5	Q4	2		
5-Nov-13	0.5	Q4	2		
5-Nov-14	0.5	Q4	2		

# Contaminant concentration is declining

MW-102	Benzene Concentration			Rank sum of	
Date	(ug/l)	Group	Rank Ties	1st year (WRS)	U Statistic
1-Nov-07	56	Q4	7	26	0
18-Nov-08	14	Q4	6		
3-Dec-09	79.8	Q4	8		
9-Nov-10	10.4	Q4	5		
29-Nov-11	0.42	Q4	1		
8-Nov-12	0.5	Q4	3		
5-Nov-13	0.5	Q4	3		
5-Nov-14	0.5	Q4	3		

**Contaminant concentration is declining** 

# Direct-Contact Exceedance - Hazard - Risk Calculation Summary from Soil Data

Note: This Summary is OLD. Update with 'Get Summary' in Row 872 of the applicable \*\_DC\_RCLs worksheet.

(Cumulative) Cancer Risk	(Cumulative) Hazard Index	Number of Individual Exceedance		# of Soil-Concentration Entries:	BRRTS#:
4.3E-07	0.0498	0 INDUSTRIAL	Yes, levels are below	Bottom-Line:	ype BRRTS No. Here (If Known)
п	0.0498	0	Yes, levels are below	Bottom-Line:	ype BRRTS No. Here (If Known)

Date of Entry: 7/22/2015. List below only has contaminants with data.

Contaminant	CAS Number		C RCL (mg/kg)	Not-To- Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene Ethylbenzene Toluene Xylenes Methyl tert-Butyl Ether (MTBE) Trimethylbenzene, 1,2,3- Trimethylpentane, 2,2,4-	71-43-2 100-41-4 108-88-3 1330-20-7 1634-04-4 526-73-8 540-84-1	52,400. 3,890. 100,000. 321.	7.41 37. - 293.	7.41 37. 818. 258. 293. 293. 61.2	ca ca Csat Csat ca Csat Csat		0.56 13. 2.2 67. 0.37 10. 28.		0.0009 0.0005 0.00172 0.00312	7 6E-08 3 5E-07

Find		Fod MCL (vall)			Use 2, or input		INPUT NUMERIC		Type BRRTS No.
Matted and and	NR 140 CAS	Fed MCL (ug/l) (If Red,	NR 140 ES (ug/i)	RCL-gw (mg/kg) DF=1	the calculated site-specific DF -	2.00	SOIL Site Data	Flag E = Individual	Here (If Known). Assess groundwater
NR140 Substance		MCL>ES)		(99) =	->		Max (mg/kg)	Exceedancel	data separately.
Acetochlor	34256-82-1		7.	0.0056		0.0111			
Acetone	67-64-1	-	9,000.	1.8383		3.6766			
Alachior	15972-60-8	2.	2.	0.0017		0.0033			
Aldicarb	116-06-3	3.	10.	0.0025		0.005			
Aluminum	7429-90-5	•	200.	300.		600.			
Antimony	7440-36-0	6.	6.	0.271		0.542			
Anthracene	120-12-7	-	3,000.	98.8636		197.7273			
Arsenic	7440-38-2	10.	10.	0.292		0.584			
Atrazine, total chlorinated residues	1912-24-9	3.	3.	0.002		0.0039			
Barium Bentazon	7440-39-3 25057-89-0	2,000.	2,000. 300.	82.4 0.0657		164.8 0.1314			
Benzene	71-43-2	5.	5. 5.	0.0026		0.0051	0.56	E	
Benzo(a)pyrene (PAH)	50-32-8	0.2	0.2	0.0020		0.47	0.00	5	
Benzo(b)fluorenthene (PAH)	205-99-2	-	0.2	0.2397		0.4793			
Beryllium	7440-41-7	4.	4.	3.16		6.32			
Boron	7440-42-8	-	1,000.	3.208		6.416			
Bromosichloromethene (THM)	75-27-4	80.	0.6	0.0002		0.0003			
Bromoform (THM)	75-25-2	80.	4.4	0.0012		0.0023			
Bromomethane	74-83-9		10.	0.0025		0.0051			
Butylate	2008-41-5	-	400.	0.3887		0.7773			
Cadmium	7440-43-9	5.	5.	0.376		0.752			
Carbaryl	63-25-2	-	40.	0.0363		0.0726			
Carbofuran	1563-66-2	40.	40.	0.0156		0.0312			
Carbon disulfide	75-15-0		1,000.	0.2959		0.5919			
Carbon tetrachloride	56-23-5	5.	5.	0.0019		0.0039			
Chloramben	133-90-4	-	150.	0.0364		0.0729			
Chiorodifluoromethane	75-45-6	-	7,000.	2.8942		5.7885			
Chloroethane	75-00-3	-	400.	0.1133		0.2266			
Chloroform (THM)	67-66-3	80.	6.	0.0017		0.0033			
Chlorpyrifos	2921-88-2	-	2.	0.0294		0.0588			
Chloromethane	74-87-3	172	30.	0.0078		0.0155			
Chromium (total)	7440-47-3	100.	100.	180,000. No Cr-Vi		360,000. If no Cr-VI			Re-assess if Cr-VI present
Chrysene (PAH)	218-01-9	•	0.2	0.0723		0.1446			
Cobalt	7440-48-4	1,300.	40.	1.8037		3.6073			
Copper Cyanazine	7440-50-8 21725-46-2	1,300.	1,300. 1.	45.8 0.0005		91.6			
Cyanide, free	57-12-5	200.	200.	2.02		4.04			
Dacthal (DCPA)	1861-32-1	200.	70.	0.0852		0.1705			
1,2-Dibromoethane	106-93-4	0.05	0.05	1.41E-05		2.82E-05			
Dibromochloromethene (THM)	124-48-1	80	60.	0.016		0.032			
1,2-Dibromo-3-chioropropane (DBDF)	96-12-8	0.2	0.2	8.64E-05		0.0002			
Dibutyl phthalate	84-74-2	-	1,000.	2.5194		5.0388			
Dicamba	1918-00-9		300.	0.0776		0.1553			
1,2-Dichlorobenzene	95-50-1	600.	600.	0.584		1.168			
1,3-Dichlorobenzene	541-73-1	-	600.	0.5764		1.1528			
1,4-Dichlorobenzene	106-46-7	75.	75.	0.072		0.144			
Dichlorodifluoromethane	75-71-8	-	1,000.	1.5431		3.0863			
1,1-Dichloroethane	75-34-3	-	850.	0.2414		0.4828			
1,2-Dichloroethane	107-06-2	5.	5.	0.0014		0.0028			
1,1-Dichloroethylene	75-35-4	7.	7.	0.0025		0.005			
1,2-Dichloroethylene (cls)	156-59-2	70.	70.	0.0206		0.0412			
1,2-Dichloroethylene (trans)	156-60-5	100.	100.	0.0294		0.0588			
2,4-Dichtorophenesyacetic acid (2,4-D)	94-75-7	70.	70.	0.0181		0.0362			
1,2-Dichloropropane	78-87-5	5.	5.	0.0017		0.0033			
1,3-Dichloropropune (darhama) (Telona)	542-75-6		0.4	0.0001		0.0003			
Di (2-ethylhexyl) phihalate	117-81-7	6.	6.	1.44		2.88			
Dimethoate	60-51-5	-	2.	0.0005		0.0009			
2,4-Dinitrotoluene	121-14-2	•	0.05	6.75E-05		0.0001			
2,6-Dinitrotoluene	606-20-2 25321-14-6	-	0.05 0.05	6.88E-05 6.88E-05		0.0001			
Dinitrotoluene, Total Residues  Dinoseb	88-85-7	7.	7.	0.0615		0.0001			1
1,4-Dioxane (p-dioxane)	123-91-1	7.		0.0006		0.123 0.0012			
Dioxin (2,3,7,8-TCDD)	1746-01-6	3.00E-05	3. 3.00E-05			3.00E-05			
Endrin	72-20-8	2.	3.00E-03 2.	0.0808		0.1616			
EPTC	759-94-4	۷.	250.	0.132		0.264			
	**************************************		200.	U.102		5.207			9

Find	NR 140 CAS	Fed MCL (ug/l) (If Red, MCL>ES)	NR 140 ES (ug/l)	RCL-gw (mg/kg) DF=1	Use 2, or input the calculated site-specific DF - 2.00	INPUT NUMERIC SOIL Site Data Max (mg/kg)	Flag E =
Ethylbenzene	100-41-4	700.	700.	0.785	->		Exceedancel
Ethyl Ether (Diethyl Ether)	60-29-7	700.	1,000.	0.2239	1.57 0.4478	13.	Ε
Ethylene glycol	107-21-1	-	14,000.	2.8279	5.6559		
Fluoranthene	206-44-0		400.	44.4389	88.8778		
Fluorene (PAH)	86-73-7	-	400.	7.4014	14.8027		
Fluoride	7782-41-4	4,000.	4,000.	601.	1,202.		
Fluorotrichloromethane	75-69-4	-1,000.	3,490.	2.2379	4.4758		
Formaldehyde	50-00-0		1,000.	0.202	0.404		
Heptachlor	76-44-8	0.4	0.4	0.0331	0.0662		
Heptachlor epoxide	1024-57-3	0.2	0.2	0.0041	0.0082		
Hexachlorobenzene	118-74-1	1.	1.	0.0126	0.0252		
n-Hexane	110-54-3		600.	4.2222	8.4444		
Lead	7439-92-1	15.	15.	13.5	27.		
Lindane	58-89-9	0.2	0.2	0.0012	0.0023		
Manganese	7439-96-5		300.	19.6074	39.2148		
Mercury	7439-97-6	2.	2.	0.104	0.208		
Methanol	67-56-1	-	5,000.	1.01	2.02		
Methoxychlor	72-43-5	40.	40.	2.16	4.32		
Methylene chloride	75-09-2	5.	5.	0.0013	0.0026		
Methyl ethyl ketone (MEK)	78-93-3	-	4.000.	0.833	1.6661		
Methyl isobutyl katone (MISK)	108-10-1		500.	0.1133	0.2266		
Methyl tert-butyl ether (MTSE)	1634-04-4	_	60.	0.0135	0.027	0.37	E
Metolachior/s-Metolachior	51218-45-2	-	100.	0.1178	0.2356	0.01	-
Metribuzin	21087-64-9		70.	0.0214	0.0427		
Molybdenum	7439-98-7	-	40.	0.8096	1.6192		
Monochlorobenzene	108-90-7	100.	100.	0.0679	0.1358		
Naphthalene	91-20-3		100.	0.3291	0.6582		
Nickel	7440-02-0	-	100.	6.5306	13.0612		
N-Nitrosadiphenylamine (NDPA)	86-30-6	_	7.	0.0382	0.0764		
Pentachlorophenol (PCP)	87-86-5	1.	1.	0.0101	0.0202		
Phenol	108-95-2	-	2,000.	1.1473	2.2946		
Picloram	1918-02-1	500.	500.	0.139	0.278		
Polychiorinated biphenyts (PCBs)	1336-36-3	0.5	0.03	0.0047	0.0094		
Prometon	1610-18-0		100.	0.0474	0.0949		
Propazine	139-40-2		10.	0.0089	0.0178		
Pyrene (PAH)	129-00-0		250.	27.0661	54.1322		
Pyridine	110-86-1	-	10.	0.0034	0.0069		
Selenium	7782-49-2	50.	50.	0.26	0.52		
Silver	7440-22-4	-	50.	0.425	0.85		
Simazine	122-34-9	4.	4.	0.002	0.0039		
Styrene	100-42-5	100.	100.	0.11	0.22		
Tertiary Butyl Alcohol (TBA)	75-65-0	-	12.	0.0025	0.0049		
1,1,1,2-Tetrachloroethane	630-20-6	-	70.	0.0267	0.0534		
1,1,2,2-Tetrachloroethane	79-34-5	-	0.2	7.82E-05	0.0002		
Tetrachioroethylene (PCE)	127-18-4	5.	5.	0.0023	0.0045		
Tetrahydrofuran	109-99-9	-	50.	0.0111	0.0222		
Thallium	7440-28-0	2.	2.	0.142	0.284		
Toluene	108-88-3	1,000.	800.	0.5536	1.1072	2.2	E
Toxaphene	8001-35-2	3.	3.	0.464	0.928		
1,2,4-Trichlorobenzene	120-82-1	70.	70.	0.204	0.408		
1,1,1-Trichloroethane	71-55-6	200.	200.	0.0701	0.1402		
1,1,2-Trichloroethane	79-00-5	5.	5.	0.0016	0.0032		
Trichloroethylene (TCE)	79-01-6	5.	5.	0.0018	0.0036		
2,6.5-Trisibaselonangempatric and Cut,6-TP-Rhank	93-72-1	50.	50.	0.0275	0.055		
1,2,3-Trichloropropane	96-18-4	-	60.	0.0259	0.0519		
Trifluralin	1582-09-8	-	7.5	0.2474	0.4948		
Transferences (1,2,4- and 1,2,5- sprained)		-	480.	0.691	1.3821	38.	E
Vanadium	7440-62-2	-	30.	30.	60.		
Vinyl chloride	75-01-4	2.	0.2	6.90E-05	0.0001	11/25/00	
Xylenes (m-, o-, p- combined)	1330-20-7	10,000.	2,000.	1.97	3.94	67.	E

Type BRRTS No.
Here (If Known).
Assess groundwater
data separately.

# ATTACHMENT D – MAINTENANCE PLANS AND PHOTOGRAPHS

- D.1 DESCRIPTIONS OF MAINTENANCE ACTION(S) REQUIRED FOR MAXIMIZING EFFECTIVENESS OF THE ENGINEERED CONTROL, VAPOR MITIGATION SYSTEM, FEATURE OR OTHER ACTION FOR WHICH MAINTENANCE IS REQUIRED
- D.2 LOCATION MAP(S) WHICH SHOW(S)
  - D.2 Site Map Barrier
  - D.2 Site Map Impediment
- D.3 PHOTOGRAPHS STRUCTURAL IMPEDIMENT & BARRIER
- D.4 INSPECTION LOG

Uno-Ven (Citgo)
9401 North 107<sup>th</sup> Street (Formerly 9521 North 107<sup>th</sup> Street)
Milwaukee, Wisconsin 53224
BRRTS No. 02-41-118373
PIN #0020071110

**D.1** 

#### Introduction

This document is the Maintenance Plan for a barrier at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing barrier which addresses or occupies the area over the contaminated groundwater plume or soil.

More site-specific information about this property/site may be found in:

- The case file in the DNR Southeast Region office
- BRRTS on the Web (DNR's internet based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Milwaukee County.

### **Description of Contamination**

Soil contaminated by petroleum is located at a depth of 3 to 5 feet near the eastern portion of the source property. Groundwater contaminated by petroleum is centrally located on the source property at a depth of 4 to 8 feet below ground surface. The extent of the soil and groundwater residual contamination are shown on the attached **Figure B.2.b** and **Figure B.3.b**, respectively.

### Description of the Barrier to be Maintained

The barrier consists of asphalt or concrete that is located on the source property as shown on Figure D.2. Photographs of the barrier are provided in D.3.

### Cover/Building/Slab/Barrier Purpose

The asphalt/concrete barrier over the contaminated soil and groundwater plume serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Based on the current use of the property, light industrial, the barrier should function as intended unless disturbed.

### Description of the Structural Impediment

The piping and canopy area are considered a structural impediment to the completion of site investigation and/or remediation and this impediment is on the source property as shown on Figure D.2. Photographs of the structural impediment are provided in D.3.

### **Annual Inspection**

The asphalt/concrete barrier overlying the soil and groundwater plume and as depicted in **Figure D.2.** will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as **D.4**, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place to keep it at the site, the plan will be kept at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

#### **Maintenance Activities**

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the asphalt/concrete barrier overlying the soil and groundwater plume are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the asphalt/concrete barrier, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site at the address of the property owner the property owner must make it available to all interested parties for viewing.

### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property where asphalt/concrete barrier is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; and 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether

further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

### Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

**Contact Information** 

May 2017

Site Owner and Operator:

Scott Buckner

2316 Terminal Drive

Arlington leights, Illinois 60005

847-867-2420

Signature:

Consultant:

**Groundwater & Environmental Services** 

1050 Corporate Blvd, Suite C

Aurora, Illinois 60505

866-455-2419

DNR:

**Binyoti Amungwafor** 

2300 North Martin Luther King Drive

Milwaukee, Wisconsin 53212

414-263-8607

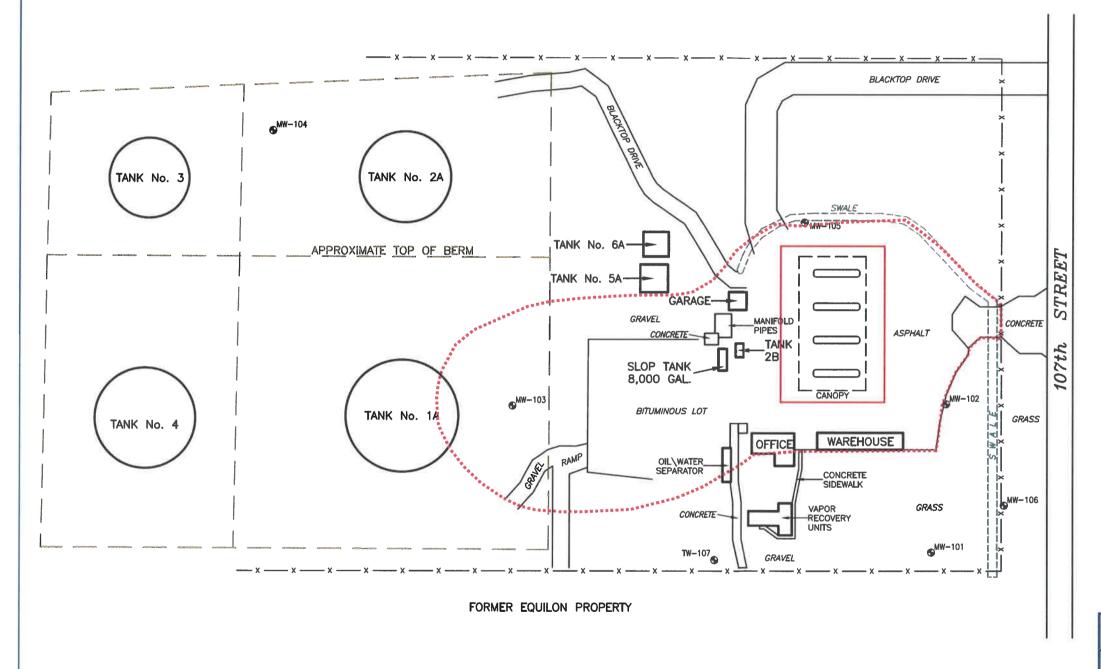
### **Location Maps**

Soil and groundwater analytical maps are provided as **Figure B.2.a** and **Figure B.2.b**, respectively. The asphalt/concrete barrier detailed in this maintenance plan is illustrated on **Figure D.2**. The structural impediment is illustrated on **Figure D.2**.

### Continuing Obligations Inspection and Maintenance Log

The source property will utilize form 4400-305 as provided by the WDNR. A copy of the 4400-305 form is provided in **D.4**.





**LEGEND** 

DISPENSER ISLAND

CHAIN LINK FENCE

MONITORING WELL

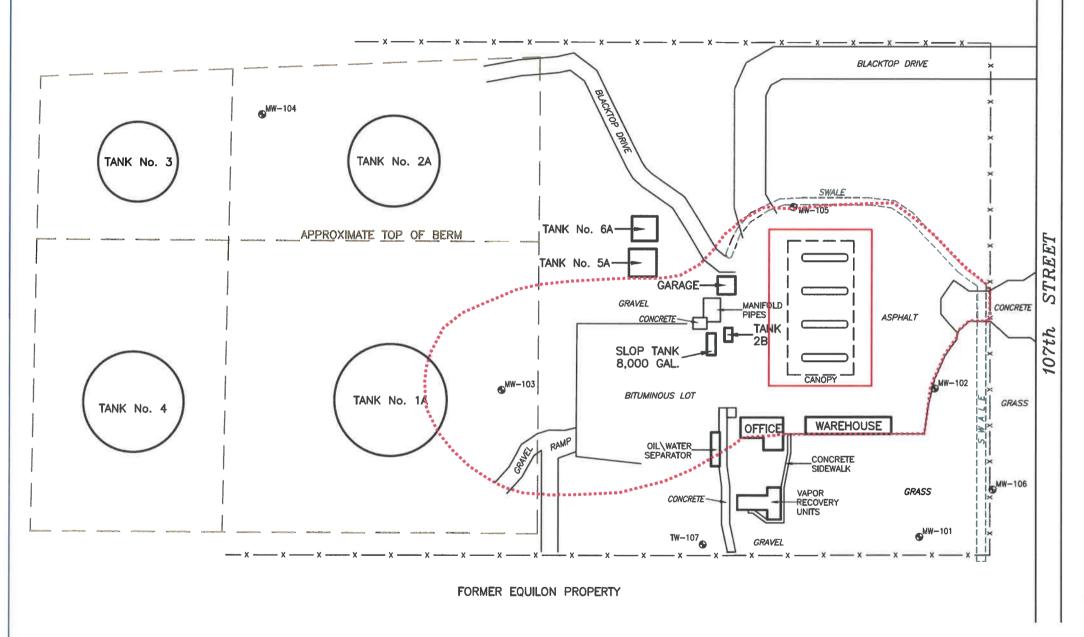
Area Covered By Engineered Barrier
For Continuing Obligations

STRUCTURAL IMPEDIMENT

DRAFTED BY: W.A.W. (N.J.)	SITE	MAP- BARRIE	?						
CHECKED BY:	FORMER PDVMR MI	LWAUKEE TERM							
REVIEWED BY:	9521 N 107th STREET MILWAUKEE, WISCONSIN								
NORTH	Groundwater & Environmental Services, Inc. 1050 CORPORATE BOULEVARD, SUITE C, AURORA, IL 60505								
	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE						
	0 100	11-6-15	D.2						

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.





LEGEND

DISPENSER ISLAND

CHAIN LINK FENCE

MONITORING WELL

STRUCTURAL IMPEDIMENT

Area Covered By Engineered Barrier
For Continuing Obligations

DRAFTED BY: W.A.W. (N.J.)	SITE MAP-IMPEDIMENT							
CHECKED BY:	FORMER PDVMR MILWAUKEE TERMINAL							
NORTH	Groundwater & Environmental Services, Inc. 1050 CORPORATE BOULEVARD, SUITE C, AURORA, IL 60505							
	SCALE IN FEET (APPROXIMATE)	DATE	FIGURE					
	0 100	11-6-15	D.2					

SOURCE: AEROSTAR ENVIRONMENT SERVICES, INC. DEC. 2009.



# <u>D.3 - Photographs - Structural Impediment & Barrier</u>



Structural Impediment (View Northwest)



# <u>D.3 - Photographs - Structural Impediment & Barrier</u>



Structural Impediment (View Southwest)



# <u>D.3 – Photographs – Structural Impediment & Barrier</u>



Barrier (View Southwest)



# <u>D.3 – Photographs – Structural Impediment & Barrier</u>



Barrier (View South)



# <u>D.3 – Photographs – Structural Impediment & Barrier</u>



Barrier (View West)



# <u>D.3 - Photographs - Structural Impediment & Barrier</u>



Barrier (View Southwest)



## <u>D.3 - Photographs - Structural Impediment & Barrier</u>



Barrier (View West)





Barrier (View East)





Barrier (View South)





Barrier (View Southeast)





Barrier (View East)





Barrier (View North)





Barrier (View Northeast)





Barrier (View East)

State of Wisconsin Department of Natural Resources dnr.wi.gov

### **Continuing Obligations Inspection and Maintenance Log**

Form 4400-305 (2/14)

Page 1 of 2

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site	e) Name			[8	BRRTS No.			
Uno-Ven					02-41-1183	73		
Inspections are required to be conducted (see closure approval letter):  annually semi-annually other – specify			approval letter):	When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):  binyoti.amungwafor@wisconsin.gov				
Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or mainter	Previous recommendation implemented			
		monitoring well cover/barrier vapor mitigation system other:			OY ON	OYON		
		monitoring well cover/barrier vapor mitigation system other:			OY O	OYON		
		monitoring well cover/barrier vapor mitigation system other:			O Y O N	OYON		
		monitoring well cover/barrier vapor mitigation system other:		-	OY ON	OYON		
		monitoring well cover/barrier vapor mitigation system other:			OY ON	OYON		
		monitoring well cover/barrier vapor mitigation system other:			O Y O M	OYON		

02-41-118373 BRRTS No.				Continuing Obligations Inspection and Maintenance Log Form 4400-305 (2/14) Page 2 of 2				
{Click to Add/Ed	lit Image}	Date added:	{Clic	k to Add/Edit Image}	Date added:			

Title:

Title:

# ATTACHMENT E – MONITORING WELL INFORMATION

No attachments are provided because all the monitoring wells are proposed to be abandoned once closure is obtained. The proposed monitoring well abandonment is illustrated on Figure B.3.d.

## <u>ATTACHEMENT F – SOURCE LEGAL DOCUMENTS</u>

- F.1 DEED
- F.2 CERTIFIED SURVEY MAP
- F.3 VERIFICATION OF ZONING
- F.4 SIGNED STATEMENT

## F.1 DEED

DOCUMENT NO.

SPECIAL WARRANTY DEED

STATE OF WISCONSIN

This Indenture, made this a of August, 1997, between PDV Midwest Refining, L.L.C., a limited liability company organized and existing under and by virtue of the laws of the State of Delaware, located at Lemont, Illinois, (hereinafter called the "Grantor"), and U.S. Oil Co., Inc., a Wisconsin corporation, having its principal office at 425 S.'Washington Street, Combined Locks, WI '4113 hereinafter called the "Grantee") the words "Grantor" and "Grantee" to include their respective successors and assigns where the context requires or permits.

REEL 4295 IMAG 227

REGISTER'S OFFICE Milwaukee County, WI \$5 RECORDED AT -8 00 AM APR 2 7 1998 REEL Y25 IMAGE 227 to 230

PETHILLITON GRANTEE US ON CO. INC. MASS SINASHINGTON ST. Comeines Lans, WE 54113-COJE

Witnesseth, that the Grantor, for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby confessed and acknowledged, has given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents does give, grant, bargain, sell, remise, release, alien, convey and confirm unto the Grantee all of the parcel of land as more particularly described on Exhibit "A" attached hereto and incorporated herein by reference (hereinafter referred to as the "Property") situated in the County of Milwaukee, State of Wisconsin.

7522761 16.00

RECORD Together with all singular the hereditaments and Sappurtenances thereunto belonging or in any wise appertaining; and all the estate right, title, interest, claim or demand whatsoever, of Grantor, either in law or equity, either in possession or expectancy of, in and to the above bargained premises, and their hereditaments and appurtenances.

4083.00

To Have and To Hold the said premises as above described with the hereditaments and appurtenances, unto Grantee, and to Grantee's successors and assigns FOREVER all of the parcel of real estate with all right, title and interest, subject only to the items, exceptions and encumbrances (collectively, the "Permitted Exceptions") more particularly described in Exhibit "B" attached hereto and incorporated herein by this reference.

And the said Grantor, for itself and its successors, does covenant, grant, bargain and agree to and with Grantee, Grantee's successors and assignees, that the above bargained premises, in the quiet and peaceable possession of the Grantee, Grantee's successors and assignees, against all and every person or persons lawfully claiming the whole or any part thereof, by through or

#### **UNOFFICIAL COPY**

## REEL 4295 IMAG 228

under said Grantor, and none other, subject only to the Permitted Exceptions, it will forever warrant and defend.

In Witness Whereof, Grantor has caused this instrument to be signed, sealed, and delivered by its duly authorized officers or representatives on the date first above written.

Signed, sealed and delivered

in the presence of:

PDV MIDWEST REFINING, L.L.C.

Title: Attornev-in-Fact

ACKNOWLEDGEMENT

STATE OF OKLAHOMA

COUNTY OF TULSA

Personally came before me, this and day of August, 1997, L.L.C., to me known to be the person who executed the foregoing instrument, and to me known to be such Attorney-in-Fact of said Limited Liability Company, and acknowledged that he executed the foregoing instrument as such Attorney-in-Fact as the deed of said Limited Liability Company; by its authority.

Notary Public

Commission Expires:

Drafted by : PDV MIDWEST REFINING, L.L.C . Larry Brittain

**EXHIBIT "A"** 

#### PARCEL:

That part of the NE 1/4 of Section 6, T8N, R21E, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, which is bounded and described as follow: Commencing at the Northeast corner of said 1/4 Section; running thence South 00° 02' 30" East along the East line of said 1/4 Section 746.24 feet to a point, said point being 1999.01 feet North 00° 02' 30" West of the Southeast corner of said 1/4 Section; thence South 89° 57' 30" West at right angles to the East line of said 1/4 Section 1380.00 feet to a point; thence North 00° 02' 30" West and parallel to the East line of said 1/4 Section 695.70 feet to a point in the North line of said 1/4 Section, said point being 1266.57 feet North 87° 51' 40" East of the Northwest corner of said 1/4 Section; thence North 87° 51' 40" East along the North line of said 1/4 Section 1380.92 feet to the point of commencement

Excepting therefrom the North 60.00 feet and the East 60.00 feet.

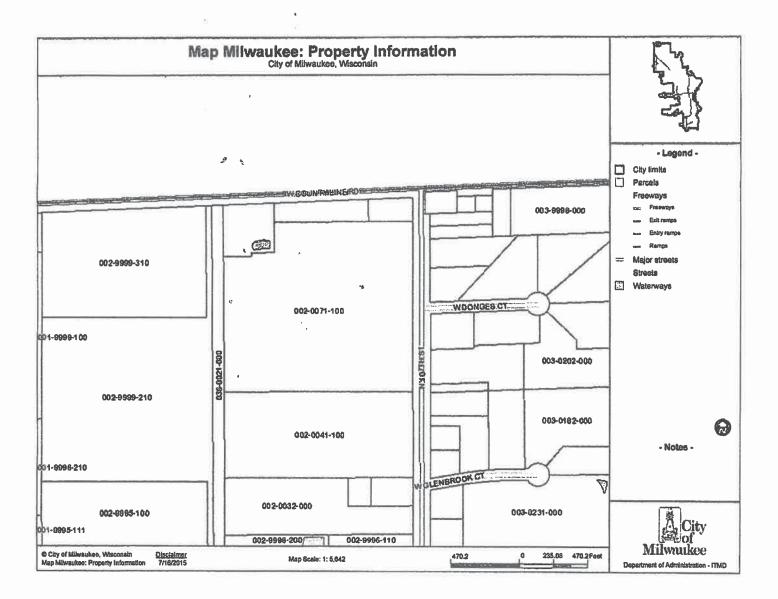
Tax Kay No. 002-9999-110-5

Address: 9521 N. 107th Street

## EXHIBIT "B" PERMITTED EXCEPTIONS

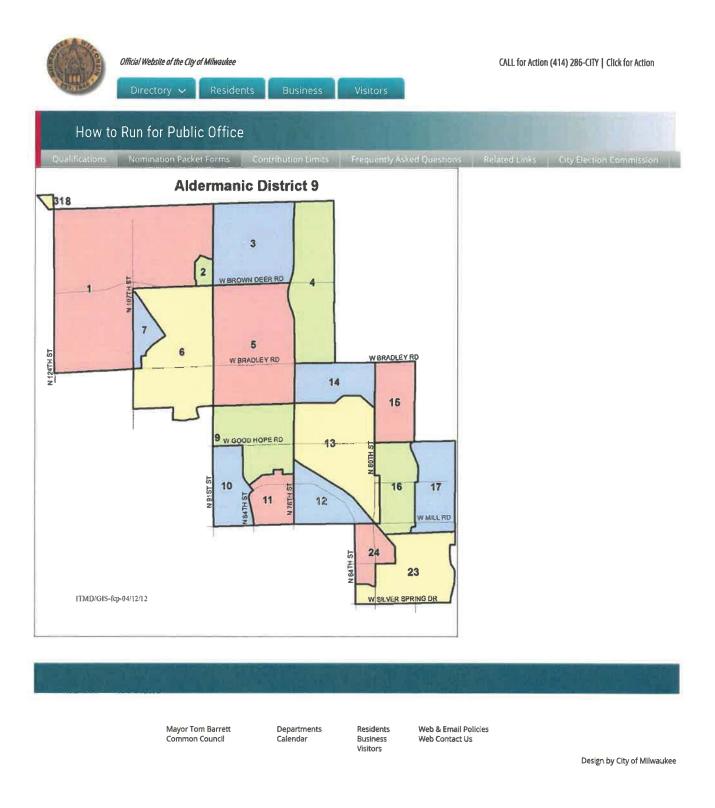
- 1. Liens or deferred charges not shown on the tax roll for installations and connections of water and sewer laterals, mains and service pipes.
- 2. All streets and public rights-of-way.
- All laws, rules, and/or regulations (federal, state and/or local) now in effect;
- 4. Restrictions, encumbrances, reservations, limitations, conditions, easements, agreements and/or other matters affecting the Property, if of public record.
- All real estate taxes and assessments not due and payable as of the date hereof.
- 6. Encroachments, overlaps, boundary line disputes, and any other matters disclosed by Survey prepared by Donald C. Chaput, Registered Land Surveyor S-1316, and dated March 20, 1997, and an inspection of the Property.
- 7. Utility easement granted by Union Oil Company of California, a California Corporation, successor by merger to the Pure Oil Company to Wisconsin Electric Power Company, its successors and assigns by an instrument dated August 11, 1981 and recorded September 18, 1981, on Reel 1403, Image 758, as Document 5501545.
- 8. Mutual Pipelines and any rights thereof, as disclosed by Survey prepared by Donald C. Chaput, Registered Land Surveyor S-1316, under date of March 20, 1997.

## F.2 CERTIFIED SURVEY MAP



## F.3 VERIFICATION OF ZONING

Assessment Detail and Listing Characteristics									
Taxkey Premise Address Nbhd Plat Assessment County Class						Class			
0020071100 9401-9521 N			N 107TH ST	6411	203	N	lilwauke	e Spe	ecial Mercantile
Ownership Information Conveyance Assessment Information									
US OIL C	US OIL COMPANY INC C/O US VENTURE		Deed Type			Year Current			
C/O US \			Date			Land	1734900	1734900	
ATTN: AI			Fee			Imprv	14034100	14034100	
425 BET	MODLINSKI 425 BETTER WAY APPLETON WI 549156192		Name or Address Change: 2012-08-06		Total	15769000	15769000		
Org Ye	sar .	D	op Year	7	oning		Ald D	ictrict	Conque
2010-1		וט	op i cai	1	IL1		Ald. District		Census 000201-
Legal Description  CERTIFIED SURVEY MAP NUMBER 7232 IN NE 1/4 OF SEC 6 T8N R21E LOT 1 & ADJ LAND IN SD 1/4 SEC COM AT SE COR LOT 1 OF SD CSM -TH W 1320' ALG S LI OF LOTS 1 & 3 OF SD CSM-TH S 660' -TH E PARALLEL TO S LI OF SD CSM 1320' -TH N 660' TO POB									
Lot Sqft 1474004			Lot Front 0	tage Lot Depth		Excess Land 0.0000		Total Sqft 1474004	
Building 1 2	Storie: 1.0	Bu	escription lk Storage	4	s Area 677 931	Ur 1		other Other	Year Built 1962 1971
Building 1	Unit Nr N/A	-	se Descriptio Fuel Stora		Area 677	Floor 1	Simila 1		Mkt Rent SqFt 0.00
Recent Permits  Sale History  Assessment History  Data Provided By Assessor Query From: 208.87.234.202  About Site									



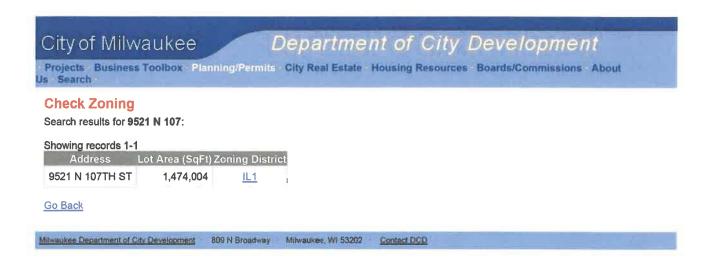
## SUBCHAPTER 8 INDUSTRIAL DISTRICTS

- **295-801.** Purposes. **1.** INDUSTRIAL-OFFICE (IO). This district provides sites for modern, clean industry and supporting, non-residential land uses that complement industrial uses or require an industrial environment. Older portions of this zoning district (IO2) often form corridors which provide a buffer between residential areas and more intensive industrial districts. The newer portions of this district (IO1) are in the form of office-industrial parks or business parks with campus-style layouts and designs. The IO district has a performance-oriented transition area where it adjoins residential neighborhoods. Buffering and other requirements in the transition area are intended to protect the character of such neighborhoods.
- 2. INDUSTRIAL-LIGHT (IL). This district is intended to provide sites primarily for light industrial uses that utilize medium-sized buildings and do not have extensive outdoor storage areas or operations. This district includes both older industrial corridors (IL2) and modern industrial parks (IL1). While most buildings contain clean, light industrial uses, some commercial and office uses may also be included. This district contains heavier uses than the IO district and requires more extensive buffering from adjoining residential areas.
- 3. INDUSTRIAL-MIXED (IM). This district is intended to provide for the orderly conversion of certain older industrial and warehousing areas with multi-story buildings to residential, commercial or office uses for which the buildings, at the present time, may be better suited. These areas have an urban character. Buildings were typically built without setbacks or yards and often with little or no off-street parking.
- 4. INDUSTRIAL-HEAVY (IH). This district accommodates high-intensity industry and often includes very large structures, extensive exterior storage, exterior mechanical operations, or heavy truck or equipment operations. It also accommodates uses that require large or isolated sites or harbor, airport or rail service. This district includes the historic industrial core of the city. It has a strong relationship to shipping and rail services and includes the port of Milwaukee, the Menomonee valley and various railroad corridors. Most sites within the IH district have already been developed or redeveloped. These sites seldom have excess land to provide buffer areas. Where possible, the IH district should be separated from residential neighborhoods with less intensive, non-residential districts.
- **295-803.** Uses. 1. USE TABLE. Table 295-803-1 indicates the use classifications for various land uses in the industrial districts. The uses in this table are defined in s. 295-201. The following are the use classifications indicated in table 295-803-1:
- a. "Y" indicates a permitted use. This use is permitted as a matter of right subject to all performance standards.
- b. "L" indicates a limited use. This use is permitted only when the use meets the standards of sub.

  2. If the use cannot meet these standards, it shall be permitted only upon board approval of a special use permit pursuant to s. 295-311-2, unless otherwise prohibited by sub. 2.
- c. "S" indicates a special use. This use is permitted only if the board approves a special use permit pursuant to s. 295-311-2.
  - d. "N" indicates a prohibited use.

-871- 10/14/2014

Zoning Check Page 1 of 1



## F.4 SIGNED STATEMENT

### STATEMENT OF LEGAL DESCRIPTION ACCURACY FOR

CITGO Petroleum Corporaton
Uno-Ven / Former PDVMR Milwaukee Terminal
9521 North 107<sup>th</sup> Street
Milwaukee, Wisconsin
BRRTS # 02-41-118373
PIN # 00-20-071100

According to the best information available to Groundwater & Environmental Services, Inc. obtained on behalf of CITGO Petroleum Corporation, the attached legal description for the Subject Property is accurate and complete.

Scott Buckner

Regional EHSS Manager

CITGO Petroleum Corporation

# ATTACHMENT G – NOTIFICATIONS TO OWNERS OF AFFECTED PROPERTIES

No attachments are provided because the residual contamination is remaining on the Subject Property. No other properties have been impacted.